MEDICAL BOTANY,

CONTAINING

SYSTEMATIC AND GENERAL DESCRIPTIONS,

WITH

PLATES OF ALL THE MEDICINAL PLANTS,

INDIGENOUS AND EXOTIC,

COMPREHENDED IN THE

CATALOGUES OF THE MATERIA MEDICA,

AS PUBLISHED BY THE

ROYAL COLLEGES OF PHYSICIANS OF LONDON AND EDINBURGH:

ACCOMPANIED WITH A

CIRCUMSTANTIAL DETAIL OF THEIR MEDICINAL EFFECTS,

AND OF THE

DISEASES IN WHICH THEY HAVE BEEN MOST SUCCESSFULLY EMPLOYED.

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By WILLIAM WOODVILLE, M. D.

FELLOW OF THE LINNEAN SOCIETY,

OF THE ROYAL COLLEGE OF PHYSICIANS, LONDON,

AND

PHYSICIAN TO THE SMALL-POX AND INOCULATION HOSPITALS.

IN THREE VOLUMES.

VOL. III.

——————— *abrotonum ægro*

Non audet, niſi qui didicit, dare. ——— HOR. Epiſt.

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M. DCC. XCIII.

TO THE

PRESIDENT

AND

FELLOWS

OF THE

ROYAL COLLEGE OF PHYSICIANS,

EDINBURGH:

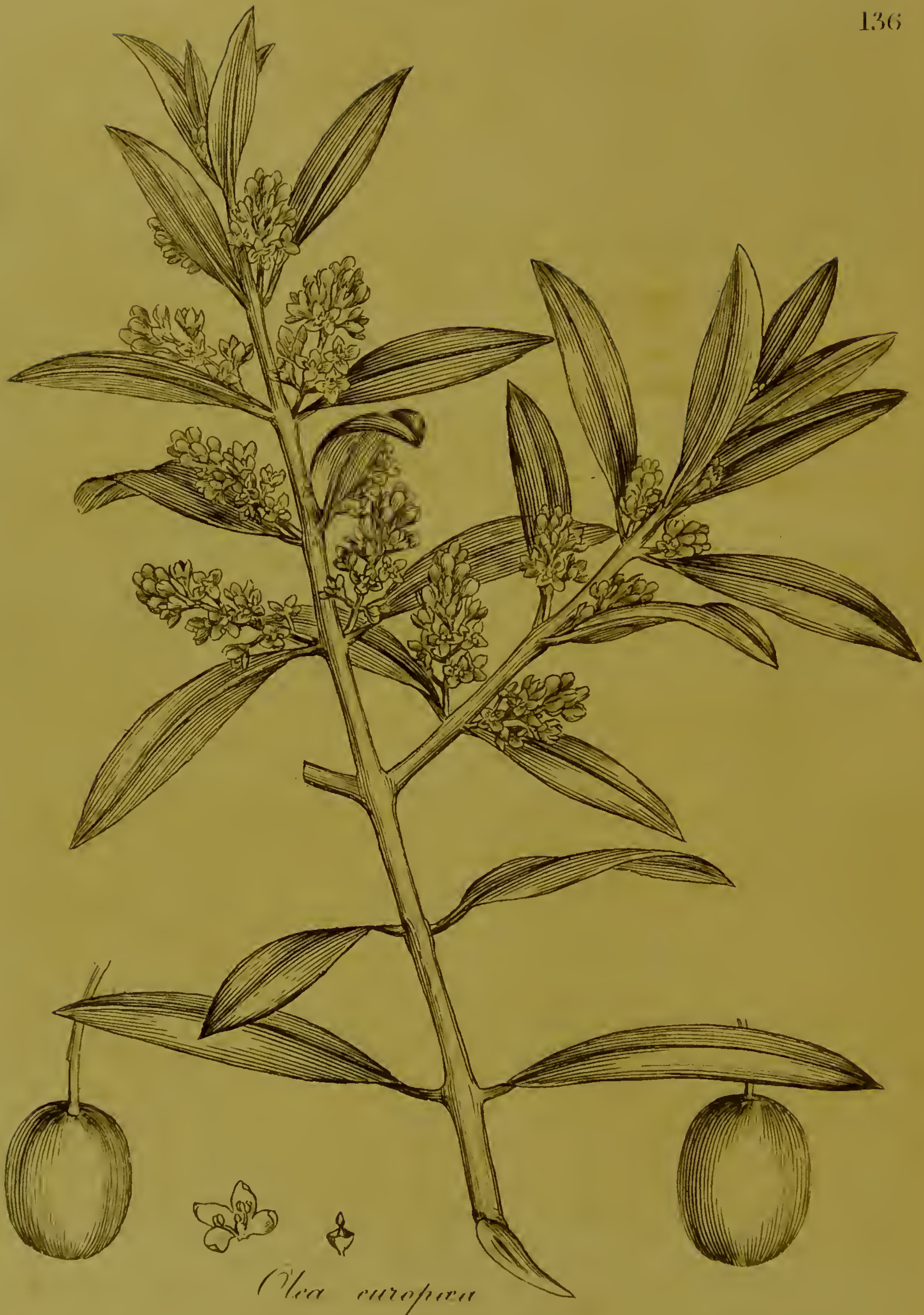
THIS THIRD VOLUME OF MEDICAL BOTANY,

IS, WITH GREAT RESPECT,

INSCRIBED

BY THE

AUTHOR.



Olea europæa

Publiſhed by Dr. Woodville April 1. 1792.

OLEA EUROPÆA. EUROPEAN OLIVE.

SYNONYMA. Oliva. *Pharm. Lond. & Edinb.* Olea. *Dod. Pempt. p.* 821. Olea ſativa. *Bauh. Pin. p.* 472. *Gerard. Emac. p.* 1392. *Park. Theat. p.* 1436. *Raii Hiſt. p.* 1541. *Conf. Du Hamel, Traité des Arbres, T.* 2. *p.* 54. *Tab.* 14. *Zait. Hebræorum;* Ελαια, *Græcorum.*

Varietates ſunt, (α *Common*) foliis lanceolatis planis ſubtus incanis.
β (*Long-leav'd*) foliis lineari-lanceolatis planis ſubtus argenteis.
γ (*Broad-leav'd*) foliis oblongis planis ſubtus incanis.
δ (*Iron coloured*) foliis lanceolatis ſubtus ferrugineis.
ε (*Twiſted-leav'd*) foliis oblongis oblique flexis ſubtus pallidis.
ζ (*Box-leav'd*) foliis oblongo-ovalibus, ramis patentibus divaricatis. *Aiton. Hort. Kew.*

Claſs Diandria. *Ord.* Monogynia. *Lin. Gen. Plant.* 20.

Eſſ. Gen. Ch. *Cor.* 4-fida: laciniis ſubovatis. *Drupa* monoſperma.

Sp. Ch. O. foliis lanceolatis integerrimis, racemis axillaribus coarctatis. *Hort. Kew.*

THIS tree uſually riſes about twenty feet in height, and ſends off numerous long branches, covered with bark of a greyiſh colour: the leaves are firm, narrow, lance-ſhaped, entire, on the upper ſide of a bright green, on the under whitiſh, and ſtand in pairs upon ſhort footſtalks: the flowers are ſmall, white, numerous, and proceed in cluſters near the footſtalks of the leaves: the calyx is tubular, and divided at the brim into four ſmall erect deciduous ſegments: the corolla is a funnel-ſhaped petal, conſiſting of a ſhort tube, about the length of the calyx, and divided at the border into four ſemiovate ſegments: the filaments are two, tapering, oppoſite, and crowned with erect antheræ: the germen is round, and ſupports a ſimple ſhort ſtyle, furniſhed with a ſtigma, which is cleft in two, and each diviſion notched at the apex: the fruit is of the drupous kind, of an oblong or oval ſhape, containing a nut of the ſame form. It is a native of the ſouth of Europe, and flowers from June till Auguſt.

The Olive, in all ages, has been greatly celebrated and held in peculiar eſtimation, as the bounteous gift of Heaven; and in gratitude to the Deity, it was formerly exhibited in the religious ceremonies of the Jews. It is ſtill conſidered as emblematic of peace and plenty; and the great quantity of oil which in ſome countries it produces, effectually realizes one of theſe bleſſings. The Olive has been long cultivated in Britain; it is mentioned in the Catalogus plantarum Horti Medici Oxonienſis, publiſhed in 1648; and when ſufficiently ſheltered, it bears the cold of our winters very well; though in this country it rarely produces flowers, and we believe never ripens its fruit.[a]

The varieties of this tree are numerous, diſtinguiſhed not only by the form of their leaves, as already noticed, but alſo by the ſhape, ſize, and colour of the fruit; as the large Spaniſh Olive, the ſmall oblong Provence Olive, the oblong dark green Olive, the ſmall roundiſh white Olive,[b] (Aglandau) the large fleſhy or Royal Olive, the large round Olive, (Ampoulan) the ſmall round reddiſh black Olive, and the ſmall fragrant or Lucca Olive. Of theſe, the two firſt ſorts, when pickled, are well known to us by the names of Spaniſh and French Olives, which to many are extremely grateful, and have been ſuppoſed to excite appetite and promote digeſtion. Pickled Olives are prepared from the green unripe fruit, which is repeatedly ſteeped in water, to which ſome add alkaline ſalt or quick lime, in order to ſhorten the operation; for when macerated in water only, the Olives require a long time before their bitterneſs is ſufficiently extracted; after this they are waſhed and preſerved in a pickle of common ſalt and water, to which an aromatic is ſometimes added.

[a] Miller ſays, that "ſeveral Olive trees were planted againſt a warm wall at Cambden-houſe, near Kenſington, which ſucceeded very well till their tops advanced above the wall; after which they were generally killed in winter, ſo far down as the top of the wall. Theſe, in 1719, produced a good number of fruit, which grew ſo large as to be fit for pickling; but ſince that time their fruit has ſeldom grown to any ſize." *Dict.*

For an account of the management and cultivation of Olives, ſee Bernard, *De l'Olivier*, 1788, *couronné par L'Académie de Marſeille.* Couture, *Traité de l'Olivier* 1786. Du Hamel, *l. c.* Sieuve, *Obſervations, &c.* 1769.

[b] This variety affords the beſt oil.

The principal conſumption of Olives is in the preparation of the common ſallad oil, or oleum olivarum of the pharmacopœias, which is obtained by grinding and preſſing them when thoroughly ripe: the finer and purer oil iſſues firſt by gentle preſſure, and inferior ſorts on heating the reſiduum, and preſſing it more ſtrongly. The beſt Olive oil is of a bright pale amber colour, bland to the taſte, and without any ſmell: it becomes rancid by age, and the ſooner, if kept in a warm ſituation: by cold, at the 38 degree of Fahr. therm. it congeals, and does not become rancid if kept in a degree of cold equal to the freezing point of water.[c] All the mild expreſſed oils of vegetables are nearly of the ſame nature; a preference however, in the opinion of Dr. Cullen, ſhould be given to the moſt fluid, and hence the oil of olives, and that of almonds, are moſt commonly directed for internal uſe. Oil, in ſome ſhape, forms a conſiderable part of our food, both animal and vegetable, and affords much nouriſhment: with ſome, however, oily ſubſtances do not unite with the contents of the ſtomach, and are frequently brought up by eructation; this happens more eſpecially to thoſe whoſe ſtomachs abound with acid to an uncommon degree.[d] Oil conſidered as a medicine is ſuppoſed to correct acrimony, and to lubricate and relax the fibres; and therefore has been recommended internally to obviate the effects of various ſtimuli, which produce irritation, and conſequent inflammation; on this ground it has generally been preſcribed in coughs, catarrhal affections, and eroſions. This oil has likewiſe been ſucceſsfully uſed in worm caſes, and in nephritic pains, ſpaſms, colics, conſtipations of the bowels, &c. Externally it has been found an uſeful application to bites and ſtings of various poiſonous animals,[e] burns, tumours, and other affections, both by itſelf or as mixed in liniments or poultices. Oil rubbed over the body has been found by many of great ſervice in dropſies, particularly in aſcites, in which three inſtances of its ſucceſs are related in the Philoſophical Tranſactions by Dr. Oliver.[f] Boenniken * has mentioned the ſucceſsful uſe of oil in rabies canina; and a farther account of its efficacy in that diſeaſe was lately read before the Medical Society of London: but though Boenniken attributes the cure of his patient to the oil, yet we find other means were employed, and the bitten part was ſcarified and bliſtered. Reſpecting the trial of this remedy here in hydrophobia, we can only obſerve, that it has been ſince uſed in a ſimilar caſe without ſucceſs, therefore at beſt little confidence is to be placed on a ſolitary inſtance. In regard to the general effects of oil, taken internally, we may remark, that though its effects as a medicine extend over the primæ viæ, yet it may be very rationally doubted if it produces any medicinal effect after paſſing into the ſanguiferous ſyſtem.

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[c] *Muſchenbroeck, Phil. Nat. tom. ii. p.* 616.

[d] *Cullen, M. M. vol. i. p.* 302.

[e] See the experiments of William Oliver, related in the Philoſophical Tranſactions, vol. 39. p. 310. by which it appears that this man ſuffered his arm to be bitten by ſerpents, and waited till moſt violent ſymptoms enſued, when they were ſoon removed by applying warm oil of Olives to the affected part. Similar experiments were made upon pigeons, dogs, &c. with equal ſucceſs. It failed however at Oxford, where theſe trials were made upon poultry, &c. See *l. c. p.* 394. Numerous experiments of this kind were repeated with various ſucceſs, and publiſhed in the Mem. de L'Acad. de Sc. 1737. It is to be regretted, that the particular ſpecies of ſerpent, by which the bites were given, was not aſcertained in any of the caſes alluded to. Linnæus was much diſappointed in this uſe of the oil, and ſays, that a woman, bitten by the Coluber Cherſea, died in great agony, though the oil was liberally adminiſtered both externally and internally. *Amœn. Acad. vol. vi. p.* 213. *& vol. ii. p.* 407.

This oil enters ſeveral officinal compoſitions, and when united with water, by the intervention of alkali, is uſually given in coughs and hoarſeneſs, &c. The effects of ſoap will be noticed under the plant Salſola Kali.

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[f] *Philoſophical Tranſ. vol.* 49. *p.* 46. For other inſtances, ſee *Ann. Med.* 1. *p.* 90. *Beobacht. a. d. Arzneyw. p.* 569. *ſqq.* And *Gardane*, *Gazette de Santé*, 1773 & 1774. *p.* 29, 254, 267, 279.

* Fränk. Samml. T. *B.* 590. ſqq.

COPAIFERA OFFICINALIS.

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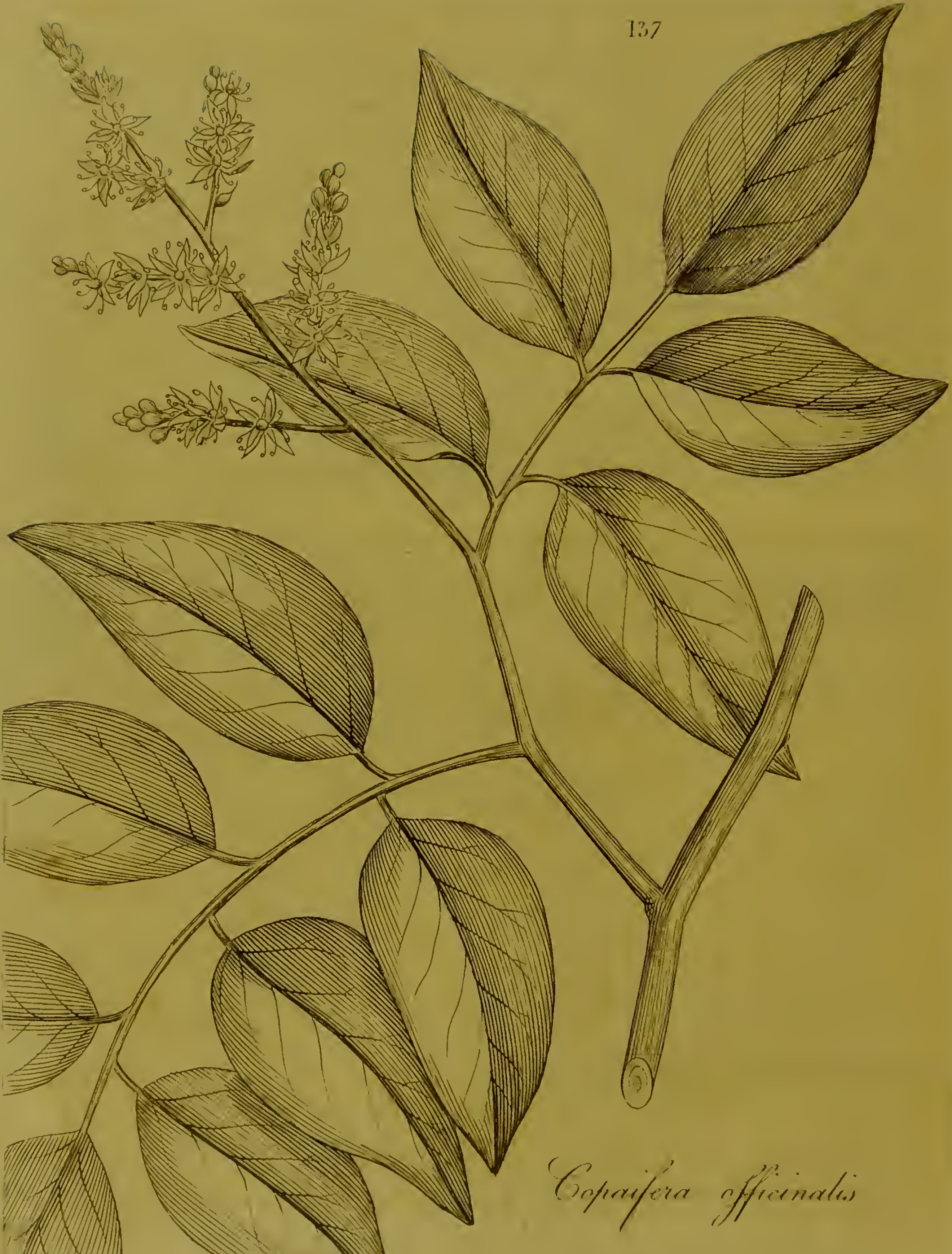

Copaifera officinalis

Publiſhed by Dr. Woodville April 1 1792

COPAIFERA OFFICINALIS. BALSAM of COPAIVA TREE.

Balſamum Copaiva. *Pharm. Lond.* Balſamum Copaibæ. *Pharm. Ed.*

SYNONYMA. Coapoiba. *Marcgr. bras.* 130. Copaiba. *Piſ. Hiſt. Nat. et Med. p.* 118. Arbre de Copau. *Labat, Nouv. voyage aux Iſles de L'Amerique, tom. ii. p.* 365. Le Copahu. *Barrere Hiſt. Nat. de la France equinoxiale. p.* 40. Arbor baccifera Braſilien. &c. *Raii Hiſt. p.* 1759. Copaifera officinalis. *Jacquin Select. Stirp. Americ. p.* 133. *tab.* 86. *ed. pict. p.* 67. *tab.* 128.

Claſs Decandria. *Ord.* Monogynia. *Lin. Gen. Plant.* 542.

Eſſ. Gen. Ch. *Cal.* o. *Petala* 4. *Legum.* ovatum. *Sem.* 1, arillo baccato.

THIS tree grows to a conſiderable height: it is covered with rough brown bark, and divides into numerous branches: the leaves are pinnated, large, conſiſting of four pair of pinnæ, which are alternate, except the undermoſt, which is nearly oppoſite; they are ovate, pointed, ſomewhat narrowed on one ſide, and placed upon ſhort footſtalks: the flowers are white, and produced in terminal branched ſpikes: there is no calyx: the petals are four, oblong, acute, concave, ſpreading: the filaments are ten, ſlender, incurved, ſomewhat longer than the corolla, and crowned with antheræ, which are oblong, and incumbent: the germen is roundiſh, compreſſed, and ſtands upon a ſhort pedicle: the ſtyle is filiform, incurved, about the length of the filaments, and furniſhed with an obtuſe ſtigma: the fruit is an oval pod, of two valves, pointed with part of the remaining ſtyle: it contains one egg-ſhaped ſeed, involved in a berried arillus.

This tall and elegant tree is a native of South America, particularly Brazil, and ſome of the neighbouring iſlands; and it is ſaid to have been diſcovered growing in Terra Firma in large woods with thoſe trees which afford ſeveral of our officinal Balſams, eſpecially that of Tolu and Peru. The reſinous juice, called Balſam of Copaiba, is obtained from this tree by making inciſions near the baſe of its trunk, extending not only through the bark but into the ſubſtance of the wood, when the balſam immediately iſſues, and at the proper ſeaſon flows in ſuch abundance, that ſometimes in three hours twelve pounds have been procured. The older trees afford the beſt balſam, and yield it two or three times in the ſame year. The Balſam ſupplied by the young and vigorous trees, which abound with the moſt juice, is crude and watery, and is therefore accounted leſs valuable. While flowing from the tree this balſam is a colourleſs fluid; in time however it acquires a yellowiſh tinge, and the conſiſtence of oil; but though by age it has been found thick like honey, yet it never became ſolid like other reſinous fluids.

Genuine* Balſam of Copaiba has a moderately agreeable ſmell, and a bitteriſh biting taſte, of conſiderable duration in the mouth: it diſſolves entirely in rectified ſpirit, eſpecially if the menſtruum be previouſly alkalized; when the ſolution has a very fragrant ſmell. Diſtilled with water it yields nearly half its weight of a limpid eſſential oil; and in a ſtrong heat, without addition, a blue oil.

This, like moſt other balſams, is nearly allied to the turpentines. It was formerly thought to be an efficacious remedy in various diſorders, as pulmonary conſumptions, coughs, ſcorbutic diſeaſes, dropſies, dyſenteries, nephritic complaints, internal ulcers, fluor albus, gleets, &c. but though ſome proofs of its good effects in certain ſtates of many of theſe diſeaſes may be adduced,[a] yet as it irritates and heats the ſyſtem to a conſiderable degree, few caſes occur in which this medicine can ſafely be given, eſpecially in large doſes.[b] It determines powerfully to the kidneys, and impregnates the urine

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* "We ſometimes find in ſhops, under the name of Copaiba, a thick, whitiſh, almoſt opake Balſam, with a quantity of turbid watery liquor at the bottom. This ſort, probably, is either adulterated by the mixture of other ſubſtances, or has been extracted, by boiling in water, from the bark or branches of the tree." *Lewis, M. M. p.* 132.

[a] See Fuller, *Pharm. extemp. p.* 275. F. Hoffman, *Obſ. Phyſ. chym. p.* 24. Lentin, *Beobacht. einig. Krankh.* 1774. *p.* 58. Mutis relates, that a woman in Santa Fé, who had been many years affected with a dropſy, in forty days was cured by taking balſam of copaiba, the doſe of which ſhe increaſed to a ſpoonful night and morning. *Nouvelles de la Republique des lettres et des arts*, 1786. *n.* 33. *p.* 374.

[b] Hoppe has fully ſet forth its dangerous effects. See D. Fred Wilh. Hoppe, apud Valentini Indiam literatam. p. 624.

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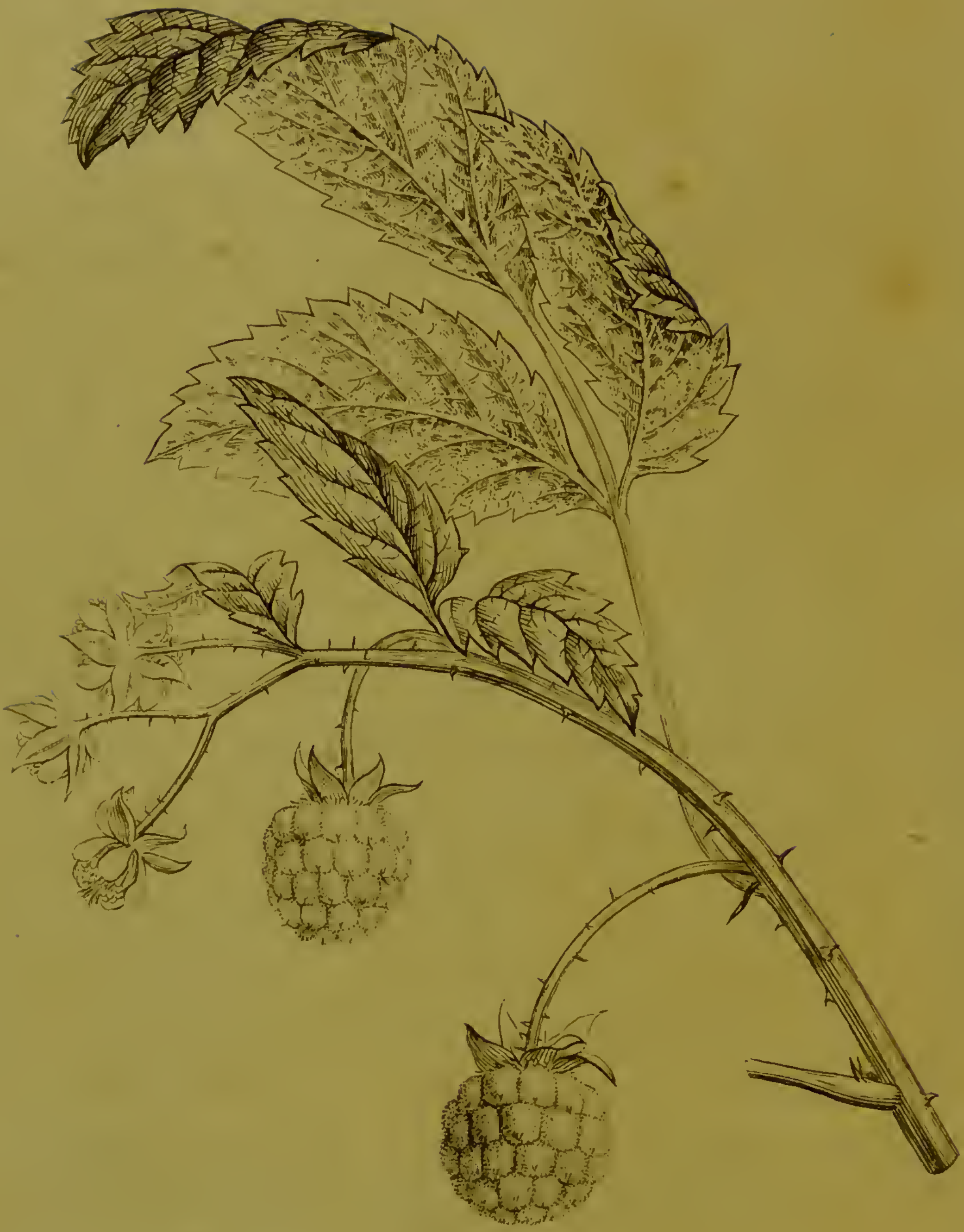

Rubus idæus

Publiſhed by Dr. Woodville April 1 1792

with its qualities, and has therefore been ſuppoſed peculiarly ſuited to diſeaſes of the urinary paſſages, but by ſtimulating theſe organs it is apt to produce very miſchievous conſequences, its uſe is therefore now principally confined to gleets and fluor albus.

If this medicine can be advantageouſly adminiſtered in pulmonary affections, it muſt be in the abſence of fever, and where the excretion from the lungs is unattended with inflammatory congeſtion[c] It may be moſt conveniently taken in the form of an emulſion, into which it may be brought by triturating it with almonds, or rather with a thick mucilage of gum-arabic, till they are well incorporated, and then gradually adding a proper quantity of water. The doſe of the Balſam ſhould rarely exceed twenty or thirty drops.

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[c] Vide Simmons *On the Treatment of Conſumptions*, *p.* 36. *ſq.*

Dr. Cullen ſays, "Whether a certain effect of balſam of copaiba is to be imputed to its laxative quality, I cannot determine, but muſt obſerve, that I have learned from an empirical practitioner, that it gives relief in hæmorrhoidal affections; and I have frequently employed it with ſucceſs, viz. given from twenty to thirty drops twice a day." *Mat. Med. vol. ii. p.* 190.

RUBUS IDÆUS. RASPBERRY BUSH.

SYNONYMA. Rubus idæus. *Pharm. Lond.* Rubus idæus ſpinoſus fructu rubro. *J. Bauh. Hiſt. vol. ii. p.* 59. *Raii Hiſt. p.* 1640. *Synop. p.* 467. Rubus caule ſpinoſo, ſubrecto, foliis quinatis et ternatis, ſubtus tomentoſis, fructibus hirſutis. *Hall. Stirp. Helv. no.* 1108. Rubus idæus. *Gerard, Emac. p.* 1272. *Park. Theat. p.* 557. *Hudſ. Ang. p.* 219. *Lightf. Scot. p.* 263. *Withering. Bot. Arrang. p.* 525. *Flor. Dan.* 788. α Red Raſpberry. β White Raſpberry. γ Smooth Raſpberry. *Aiton. Hort. Kew.*

Claſs Icoſandria. *Ord.* Polygynia. *Lin. Gen. Plant.* 632.

Eſſ. Gen. Ch. *Cal.* 5-fidus. *Petala* 5. *Bacca* compoſita: acinis monoſpermia.

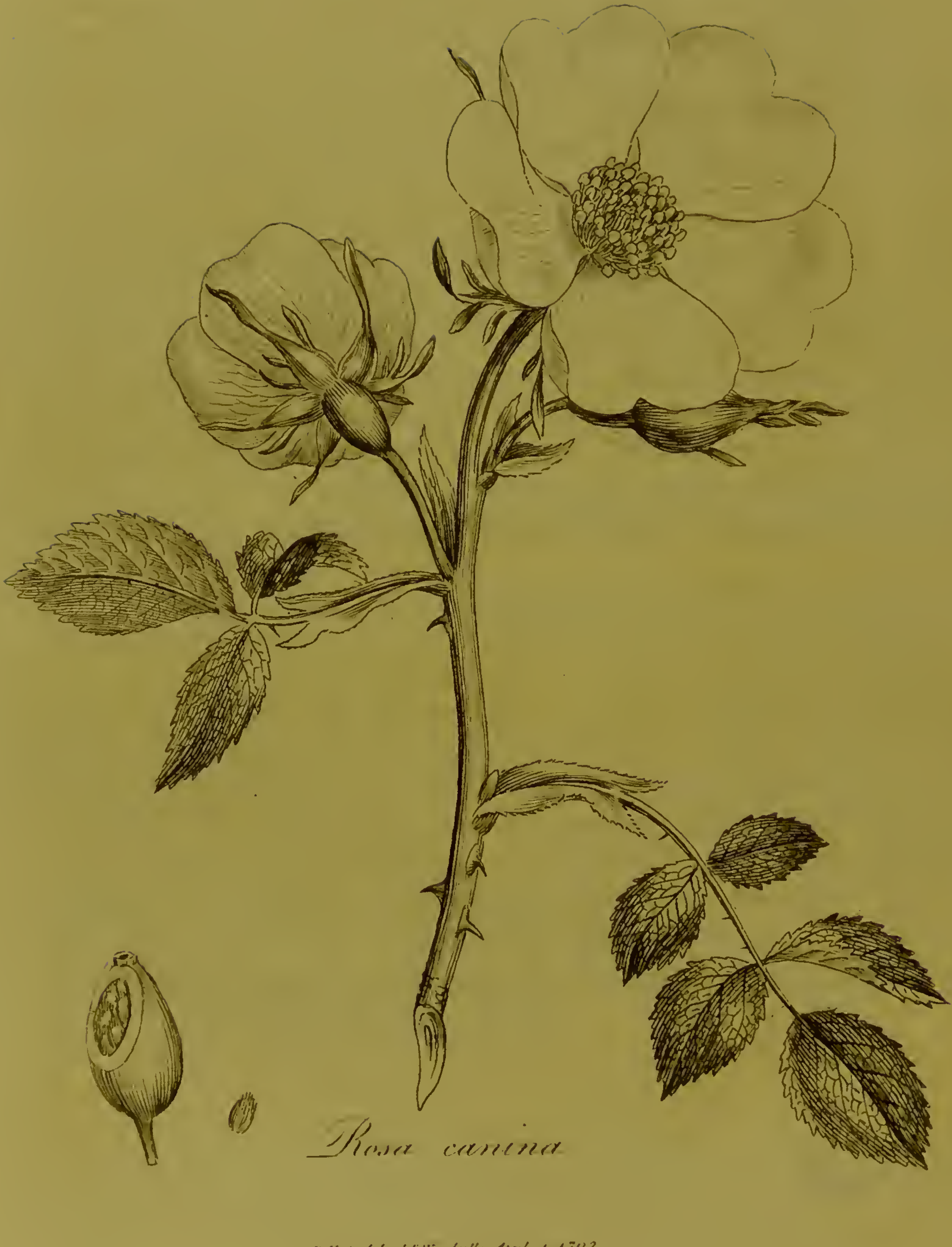
Sp. Ch. R. foliis quinato-pinnatis ternatiſque, caule aculeato, petiolis canaliculatis.

THE ſtems of the Raſpberry are biennial, rough, beſet with ſpines, and riſe two or three feet in height: the leaves are rough, veined, ſerrated, downy on the underſide, and compoſed of five or three pair of oval pinnæ, terminated by an odd one: the flowers terminate the branches in pannicles, and appear in ſucceſſion: the calyx is divided into five oblong expanding ſegments: the corolla conſiſts of five petals, which are upright, blunt, narrow, white, and inſerted into the calyx: the filaments are numerous, ſhorter than the petals, fixed to the calyx, and terminated with roundiſh compreſſed antheræ: the germens are numerous, and each ſupports a ſhort capillary ſtyle, furniſhed with a ſimple permanent ſtigma: the fruit is a red berry, compoſed of ſeveral roundiſh granulations, collected into a knob, which is convex above, concave beneath, and placed upon a conical receptacle: each granulation has one cell, containing an oblong ſeed. It is a native of Britain, uſually growing about woods, hedges, rocky mountains, and in moiſt ſituations, producing its flowers in May and June.

The Raſpberry is very commonly cultivated in our gardens, where we frequently obſerve the varieties noticed above. The figure, which accompanies this deſcription, is taken from a garden ſpecimen, and conſequently appears more luxuriant than when the Raſpberry is found in its natural or uncultivated ſtate. This fruit has a pleaſant ſweet taſte, accompanied with a peculiarly grateful flavour, on account of which it is chiefly valued. Its virtues conſiſt in allaying heat and thirſt, and in promoting the natural excretions; but it ſeems leſs adapted to anſwer theſe purpoſes than many of the other ſummer fruits, ſome of which we have already noticed.

A grateful ſyrup, prepared from the juice, is directed for officinal uſe by the London Pharmacopœia.

ROSA CANINA.



Rosa canina

Publiſhed by Dr. Woodville April 1 1792.

ROSA CANINA. DOG ROSE, Or, HEP TREE.

SYNONYMA. Cynoſbatus. *Pharm. Lond.* Roſa ſylveſtris vulgaris, flore odorato incarnato. *Bauh. Pin. p.* 483. Roſa ſylveſtris, inodorata, ſeu canina. *Park. Theat. p.* 1017. *Raii Hiſt. p.* 1470. *Synop. p.* 454. *Gerard. Emac. p.* 1270. Roſa ſpinis aduncis, foliis ſeptenis, calycibus tomentoſis, ſegmentis pinnatis & ſemipinnatis tubis breviſſimis. *Hal. Stirp. Helv.* 1101. Roſa canina. *Hudſ. Ang. p.* 219. *Lightf. Scot. p.* 262. *Ed.* 1789. *Withering. Bot. Arr. p.* 523. *Curt. Flor. Lond. Flor. Dan.* 555.

Claſs Icoſandria. *Ord.* Polygynia. *Lin. Gen. Plant.* 631.

Eſſ. Gen. Ch. Petala 5. *Cal.* urceolatus, 5-fidus, carnoſus, collo coarctatus. *Sem.* plurima, hiſpida, calycis interiori affixa.

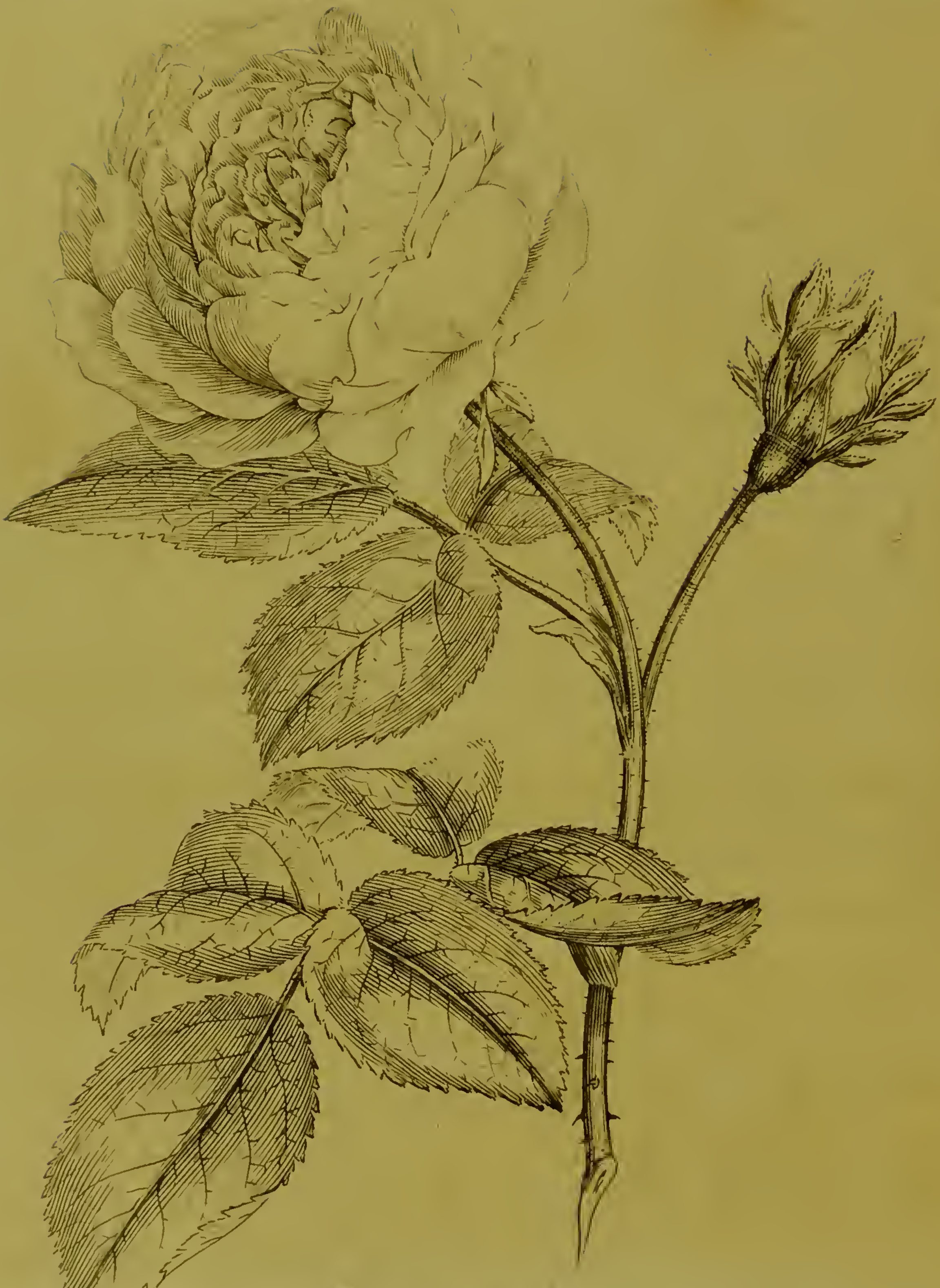
Sp. Ch. R. germinibus ovatis pedunculiſque glabris, caule petioliſque aculeatis.

THIS ſmall tree uſually riſes ten or twelve feet in height, dividing towards the top into many branches, covered with ſmooth bark, and beſet with alternate hooked prickles: the leaves are pinnated, conſiſting of two or three pair of pinnæ or leafits, with an odd one at the end; they are all of an oblong or oval ſhape, ſerrated, veined, pointed, growing cloſe to the common footſtalk, which is prickly, and at its baſe furniſhed with a ſheathy expanſion fringed at the edges: the bracteæ are oval, fringed, and placed in pairs at the peduncles, which are ſmooth: the flowers are large, terminal, two or three together, and of a reddiſh or fleſh-colour: the calyx is pitcher-ſhaped at its baſe, fleſhy, ſeparated above into five long expanding diviſions, ſubdividing into ſmaller ſegments: the corolla conſiſts of five inverſely heart-ſhaped petals: the filaments are numerous, ſlender, ſhort, inſerted in the calyx, and furniſhed with triangular antheræ: the germens are numerous, in the bottom of the calyx, ſupplied with an equal number of ſtyles, which are villous, ſhort, compreſſed in the neck of the calyx, inſerted in the ſide of the germen, and terminated with obtuſe ſtigmata: the fruit is a fleſhy ſmooth oval berry, of a deep fleſh colour, formed of the tubular part of the calyx, and containing many long rough ſeeds. It is a native of Britain, commonly growing in woods and hedges, and flowering in June.

The flowers of this tree frequently make a conſpicuous and beautiful appearance in the hedges, and though by ſome botaniſts they are ſaid to be inodorous, yet their fragrance is often very perceptible. The fruit, called heps or hips, has a ſouriſh taſte, and obtains a place in the London Pharmacopœia, in the form of a conſerve; for this purpoſe the ſeeds and chaffy fibres are to be carefully removed; for if theſe prickly fibres are not entirely ſcraped off from the internal ſurface of the heps, the conſerve is liable to produce conſiderable irritation on the primæ viæ. This officinal preparation of the fruit is not ſuppoſed to poſſeſs any medical virtue,[a] but it is agreeable to the taſte, and well ſuited to give form to the more active articles of the Materia Medica.

[a] Formerly however it was eſteemed uſeful in many diſorders, as dropſies, calculous complaints, dyſenteries, hæmorrhages, &c. See Herman, *Diſſ. de Roſa.* §. 11.

A moſs-like prickly excreſcence, called *Bedeguar*, *Roſe ſponge*, and by the French *Galle chevelüe*, is frequently found upon the branches of this tree, and is the habitation of the inſect *Cynips Roſæ.* This excreſcence was formerly in great repute as a remedy for various diſeaſes. See Gendornius, *Cynoſbatologia*, *p.* 136. *ſqq.*



Rosa centifolia

Publiſhed by Dr. Woodville May. 1. 1792.

ROSA CENTIFOLIA. HUNDRED-LEAVED ROSE.

SYNONYMA. Roſa damaſcena. *Pharm. Lond.* Roſa pallida. *Pharm. Edinb.* Roſa multiplex media. *Bauh. Pin. p.* 482. Roſa Hollandica ſive Batava. *Gerard, Emac. p.* 1262. Roſa centifolia batavica. 11 *Cluſ. Hiſt. i. p.* 114.

The varieties of this ſpecies, according to Mr. Aiton, are

DUTCH HUNDRED LEAV'D ROSE.
BLUSH HUNDRED LEAV'D ROSE.
SINGLETON'S HUNDRED LEAV'D ROSE.
BURGUNDY ROSE.
SINGLE VELVET ROSE.
DOUBLE VELVET ROSE.
SULTAN ROSE.
STEPNEY ROSE.
GARNET ROSE.
BISHOP ROSE.
LISBON ROSE.

Claſs Icoſandria. *Ord.* Polygynia. *Lin. Gen. Plant.* 631.

Eſſ. Gen. Ch. Petala 5. *Cal.* urceolatus, 5-fidus, carnoſus, collo coarctatus. *Sem.* plurima, hiſpida, calycis interiori affixa.

Sp. Ch. R. germinibus ovatis pedunculiſque hiſpidis, caule hiſpido aculeato, petiolis inermibus.

THIS ſpecies of Roſe-buſh commonly riſes about five or ſix feet in height, and is numerouſly beſet with ſhort ſpines: the leaves are pinnated, conſiſting of two or three pair of pinnæ, with an odd one at the end; each pinna, or leafit, is oval, or rather egg-ſhaped, broad, ſerrated, pointed, veined, hairy, and cloſely attached to the common footſtalk, which is rough, but without ſpines: the peduncles are covered with ſhort briſtly hairs: the flowers are large, commonly of a pale red colour, and the parts of infloreſcence, which in their ſimple and natural ſtate are ſimilar to thoſe deſcribed of R. canina, by the effects of cultivation, are forced into numerous petals, and are therefore to be conſidered as monſtroſities.

Moſt of the Roſes, though much cultivated in our gardens,* are far from being diſtinctly characterized. Thoſe denominated varieties are extremely numerous, and often permanently uniform; and the ſpecific differences, as hitherto pointed out, are in many reſpects ſo inadequate to the purpoſe of ſatisfactory diſcrimination, that it becomes a difficult matter to ſay, which are ſpecies, and which are varieties only. The London College, following Gerard and Parkinſon, has ſtill retained the name Roſa damaſcena; but the damaſk roſe is another ſpecies, widely different from the centifolia, as appears from the deſcriptions given of it by Du Roi and Miller.

The petals are directed for medicinal uſe: they are of a pale red colour, and of a very fragrant odour; which to moſt people is extremely agreeable, and therefore this and moſt of the other roſes are much uſed as noſegays: we may remark however, that in ſome inſtances they have, under certain circumſtances, produced alarming ſymptoms.[a] The petals "impart their odorous matter to watery liquors, both by infuſion and diſtillation: ſix pounds of freſh roſes impregnate, by diſtillation, a gallon or more of water ſtrongly with their fine flavour. On diſtilling large quantities, there ſeparates from the watery fluid a ſmall portion of a fragrant butyraceous oil, which liquifies by heat and appears yellow, but concretes in the cold into a white maſs: an hundred pounds of the flowers, according to the experiments of Tachenius and Hoffman, afforded ſcarcely half an ounce of oil." †

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* This ſpecies was cultivated by Gerard; but botaniſts have not been able to determine its native country.

[a] As ſneezing, inflammation of the eyes, faintings, hyſterical affections, abortion, &c. (Echtius, in *Adami vit. med. p.* 72.) Many other inſtances are related by Schenckius, *Obſ. Med. rar. p.* 917. See alſo Nat. Curioſ. in various parts, cited by Murray, *App. Med. vol. iii. p.* 160. Perſons confined in a cloſe room, with a large quantity of roſes, have been in danger of immediate extinction of life. *l. c.* From the experiments of Prieſtley and Ingenhouſz this effect ſeems owing to the mephitic air, which theſe and moſt other odoriferous flowers exhale. See Exper. on Vegetables by Dr. Ingenhouſz.

The ſmell of this oil exactly reſembles that of the roſes, and is therefore much uſed as a perfume.[b] It poſſeſſes very little pungency, and has been highly recommended for its cordial and analeptic qualities.[c] Theſe flowers alſo contain a bitteriſh ſubſtance, which is extracted by water along with the odorous principle, and remains entire in the decoction after the latter has been ſeparated by diſtillation or evaporation.[d] This fixed ſapid matter of the petals manifeſts a purgative quality, and it is on this account that the flowers are received in the Materia Medica.

The pharmacopœias direct a ſyrup to be prepared of this roſe, which in doſes of a ſpoonful is found to be pleaſant and uſeful as a laxative for children, or to obviate coſtiveneſs in adults. The ſimple diſtilled roſe-water ſeems to have nothing but its fragrance to recommend it.

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† *Lewis, M. M. p.* 541.

The proceſs for making Attar, or Eſſential Oil of Roſes, ſo much eſteemed as a perfume, is related in the *Aſiatic Reſearches* by Colonel Polier, and is as follows:—Forty pounds of roſes, with their calyces, are put into a ſtill with 60 ℔ of water. The maſs being well mixed, a gentle fire is put under the ſtill; and when fumes begin to riſe, the cap and pipe are properly fixed and luted. When the impregnated water begins to come over, the fire is leſſened by gentle degrees, and the diſtillation continued until thirty pounds of water are come over, which is generally done in about four or five hours. This water is to be poured upon 40 ℔ of freſh roſes; and thence are to be drawn from 15 to 20 ℔ of diſtilled water, by the ſame proceſs as before. It is then poured into pans of earthen ware, or of tinned metal, and left expoſed to the freſh air for the night. The attar or eſſence will be found in the morning, congealed and ſwimming on the top of the water.

[c] *F. Hoffman, Obſ. phyſ. chem. p.* 21.

[d] *Lewis, l. c.*

ROSA GALLICA. RED OFFICINAL ROSE.

SYNONYMA. Roſa rubra. *Pharm. Lond. & Edinb. Gerard. Emac. p.* 1261. *Raii Hiſt. p.* 1470. Roſa rubra multiplex. *Bauh. Pin. p.* 481. *Du Hamel Arbr.* 2. *p.* 222. *t.* 53. Roſa rubra anglica. *Park. Parad. p.* 413.

Roſa caule ſubinermi, foliis quinis ſubtus villoſis, calycis foliolis indiviſis. *Mill. Dict.*

β Roſa Præneſtina variegata plena. *Mill. ic.* 148. *t.* 221. *f.* 2.

MUNDI ROSE.
γ *MARBLED ROSE.*
δ *VIRGIN ROSE.*

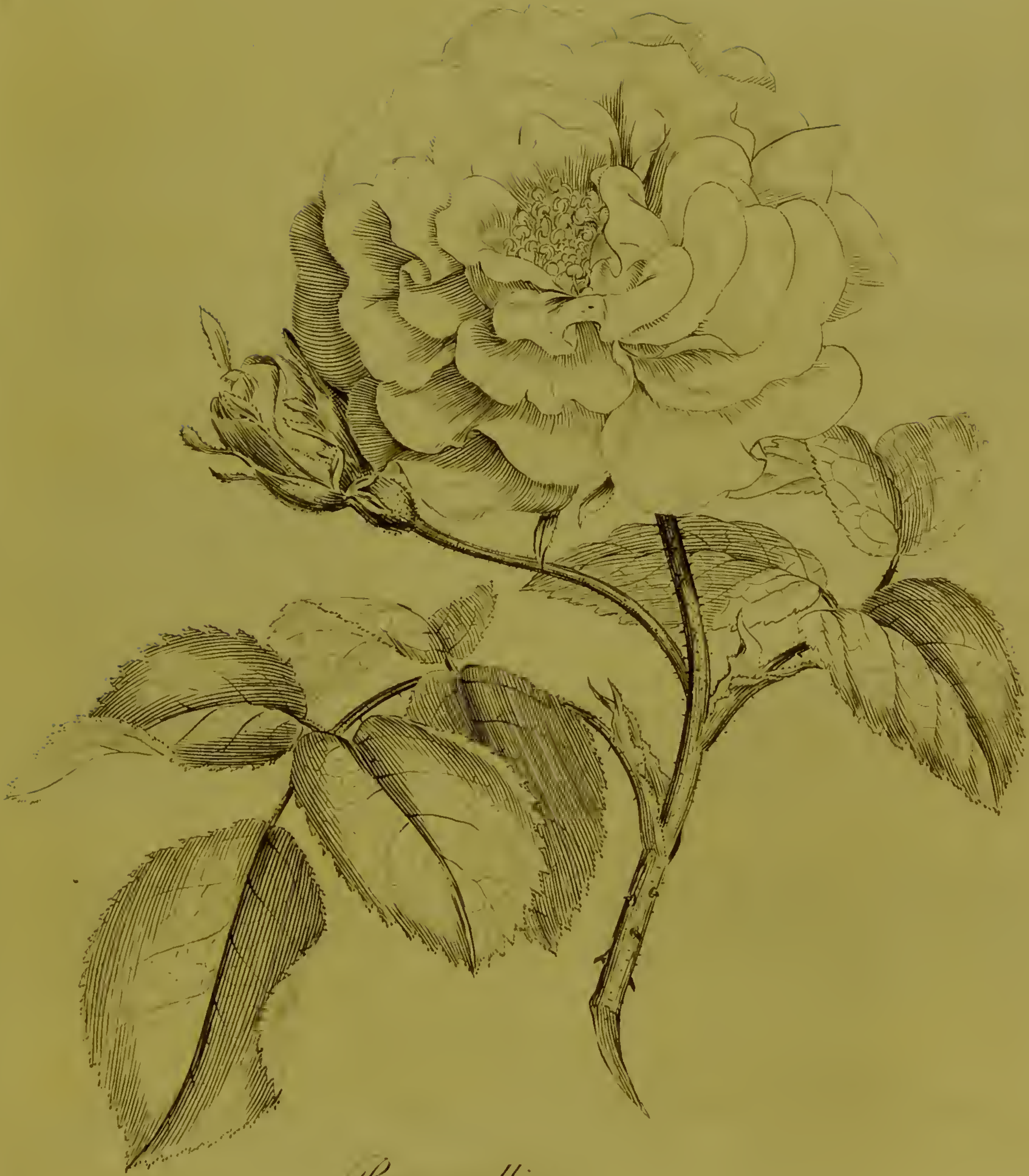
Claſs Icoſandria. *Ord.* Polygynia. *Lin. Gen. Plant.* 631.

Eſſ. Gen. Ch. Petala 5. *Cal.* urceolatus, 5-fidus, carnoſus, collo coarctatus. *Sem.* plurima, hiſpida, calycis interiori lateri affixa.

Sp. Ch. R. germinibus ovatis pedunculiſque hiſpidis, caule petioliſque hiſpido-aculeatis.

THIS ſpecies does not riſe ſo high as the Centifolia, but much reſembles it in its foliage. Linnæus reſts their ſpecific difference on the greater roughneſs and pricklineſs of the leaf-ſtalks of the gallica, but from the obſervations we have made, this circumſtance is not ſufficiently remarkable to found the diſtinction. The petals of this ſpecies, though large and ſpreading, are never half ſo numerous as in the centifolia, and are of a deep crimſon colour. It is a native of the ſouth of Europe, and is now common in our gardens, flowering in June and July.

" The flowers give out their virtue both to watery and rectified ſpirit, and tinge the former of a fine red colour, but the latter of a very pale one: the extract obtained by inſpiſſating the watery infuſion



Rosa gallica

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ſion is moderately auſtere, bitteriſh, and ſubſaline; the ſpirituous extract is conſiderably ſtronger both in aſtringency and bitterneſs."[a]

The flowers of this ſpecies of roſe poſſeſs neither the fragrance nor the laxative power of thoſe of the centifolia, but are chiefly valued for their aſtringent qualities,* which are moſt conſiderable before the petals expand, and therefore in this ſtate they are choſen for medicinal uſe,[b] and ordered by the pharmacopœias in different preparations, as thoſe of a conſerve, a honey, an infuſion, and a ſyrup. Theſe preparations, eſpecially the firſt and ſecond, have been highly eſteemed in phthiſical caſes, particularly by the Arabian phyſicians. Avicenna[c] and Meſue[d] mention ſome remarkable inſtances of this kind which were cured by the roſes. Riverius alſo cites ſeveral others;[e] and the caſe of Krüger, related in the German ephemerides,[f] has been thought a ſtill more evident proof of the efficacy of the conſerve of roſes in phthiſis pulmonalis; but as the uſe of the conſerve was conſtantly joined with that of milk and farinacea, together with proper exerciſe in the open air, it has been doubted if theſe recoveries could be wholly imputed to the roſes,[g] though their mild aſtringent and corroborant virtues certainly contributed much.[h]

The infuſion of roſes is a grateful cooling ſubaſtringent, and uſeful in hæoptyſis, and ſome other hæmorrhagic complaints as a gargle; its efficacy however depends chiefly on the acid. The ſyrup derives its uſe merely from its colour.

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[a] *Lewis, M. M. p.* 543.

* Poterius, however, relates, that he found a dram of powdered red roſes occaſion three or four ſtools, and this not in a few inſtances, but conſtantly in ſeveral. See *Lewis, l. c.*

[b] Both the aſtringency and the colour of the petals are beſt preſerved by haſty exſiccation.

[c] *Lib.* 3. *Fen.* 10. *Tract.* 5. *cap.* 5. *p.* 275. [d] *Cap. de phthiſi.*

[e] *Prax. Med. Lib.* 7. *cap.* 7. *p.* 348.

[f] *Dec.* 2. *An.* 4. *obſ.* 9. [g] See *Cullen, M. M. vol. ii. p.* 35.

[h] In ſome of the caſes alluded to, twenty or thirty pounds of the conſerve were taken in the ſpace of a month.

PARIETARIA OFFICINALIS. WALL PELLITORY.

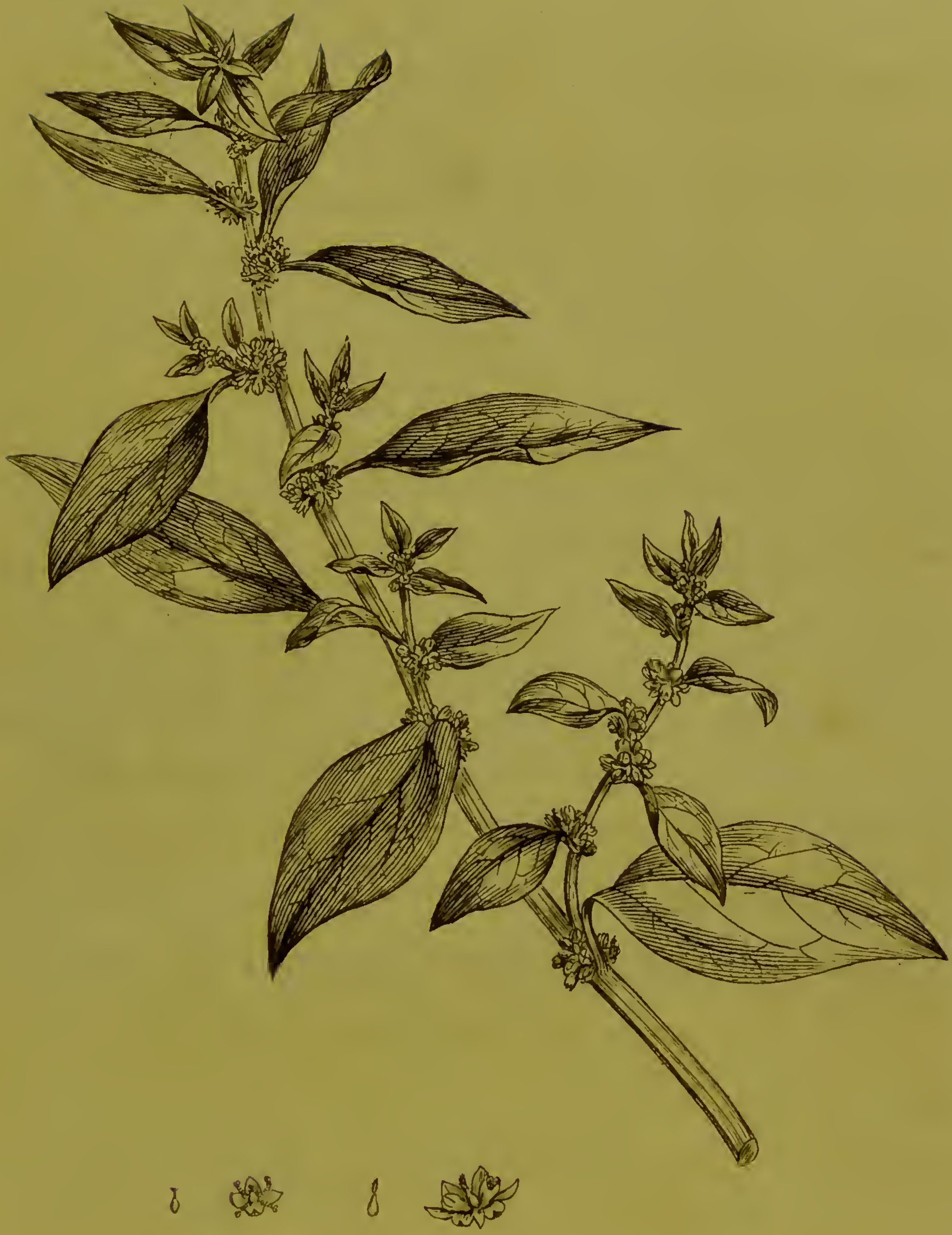
SYNONYMA. Parietaria. *Pharm. Lond. & Edinb. Gerard. Emac. p.* 331. *Raii Hiſt. p.* 206. *Synop. p.* 158. Parietaria officinarum & Dioſcoridis. *Bauh. Pin. p.* 121. Parietaria vulgaris. *Park. Theat. p.* 436. Parietaria foliis elliptico-lanceolatis hirſutis. *Hal. Stirp. Helv. n.* 1612. Parietaria officinalis. *Hudſ. Ang. p.* 442. *Lightf. Scot. p.* 634. *Withering Bot. Arr. p.* 1141. *Curt. Flor. Lond. Flor. Dan.* 521.

Claſs Polygamia. *Ord.* Monoecia. *Lin. Gen. Plant.* 1152.

Eſſ. Gen. Ch. HERM. *Cal.* 4-fidus. *Cor.* 0. *Stamina* 4. *Styl.* 1
Sem. 1. ſuperum, elongatum.
FEM. *Cal.* 4-fidus. *Cor.* 0. *Stam.* 0. *Stylus* 1.
Sem. 1. ſuperum, elongatum.

Sp. Ch. P. fol. lanceolato-ovatis pedunculis dichotomis calycibus diphyllis.

THE root is perennial, reddiſh, fibrous, creeping: the ſtem is erect, rough, viſcous, reddiſh, and furniſhed with long ſpreading branches: the leaves are elliptical, pointed, veined, ſomewhat hairy, and placed on ſhort footſtalks: the flowers are ſmall, of a greeniſh colour, tinged with red, placed at the alæ of the leaves in ſeſſile-branched veticillate cluſters, and are both hermaphrodite and female; two of the former and one of the latter are placed within the ſame involucrum, which is permanent, and divided into ſeven irregular oval pointed leafits, beſet with glandular hairs: the calyx of the hermaphrodite flower ſeparates into four flat blunt ſegments, about half the ſize of the involucrum, and ſupplies the place of a corolla: the filaments are four, tranſverſely wrinkled, and manifeſt an elaſtic power: the antheræ are double, and according to Mr. Lightfoot, have a great



Parietaria officinalis

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a great degree of ſenſibility:† the germen is egg-ſhaped, and ſupports a reddiſh ſtyle, terminated with a bruſh-like ſtigma: the calyx becomes the ſeed veſſel, and contains an egg-ſhaped ſeed. The female flower ſtands between the other two, from which it differs in not being furniſhed with ſtamina.

It is reckoned amongſt the moſt common of Britiſh plants, growing on old walls, and flowering from May till September.

This plant promiſes little from its ſenſible qualities: it has no ſmell, and its taſte is ſimply herbaceous. Formerly it was accounted emollient, and was one of the five herbs of this denomination; but as Parietaria has no mucilaginous quality, this effect ought to be aſcribed to the warm water, for which the plant ſerved merely the purpoſe of a vehicle. Its character, as a diuretic, is better known. Matthiolus tells us, that its expreſſed juice, ſweetened with ſugar, had a very powerful effect in this way:[a] and Barbeirac [b] informs us, that a decoction of this plant, and uva urſi, was found of great uſe in clearing the urinary paſſages of viſcid mucus, and ſabulous concretions: theſe teſtimonies however will have little weight with the medical practitioner, and it is now very ſeldom uſed, though ſanctioned with a place in the Materia Medica of both the Pharmacopœias.

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[a] *Matt. in Dioſc. p.* 782.

[b] *Medic. conſtit.* 1751. *p.* 163.

† "For if irritated with a point of a pin, they fly from the calyx with elaſtic force, and explode their powder." See, *l. c.*

The leaves, ſtrewed in granaries, are ſaid to deſtroy the corn weevil. *Light.*

Dr. Withering has been informed that this plant contains a conſiderable quantity of nitre, and that in making an extract from it, the maſs has taken fire. *Bot. Arr. p.* 1142.

This quality of parietaria is alſo noticed by Mr. Lightfoot. *L. c.*

SALSOLA KALI. PRICKLY SALT-WORT.

SYNONYMA. Kali ſpinoſum cochleatum. *Bauh. Pin. p.* 289. Tragus ſive Tragum Matthioli. *Park. Theat. p.* 1034. *Gerard Emac. p.* 1117. *Raii Hiſt. p.* 212. *Synop. p.* 159. *Moris Hiſt.* 5. *f.* 33. *f.* 11. Salſola Kali. *Hudſ. Ang. p.* 93. *Lightf. Scot. p.* 151. *Withering Bot. Arrang. p.* 257. *Flor. Dan. p.* 818.

Barilla, Natron, *Pharm. Lond.* Sal alkalinus fixus foſſilis, *Pharm. Ed.* vulgo ſal ſodæ ex herba kali uſta.

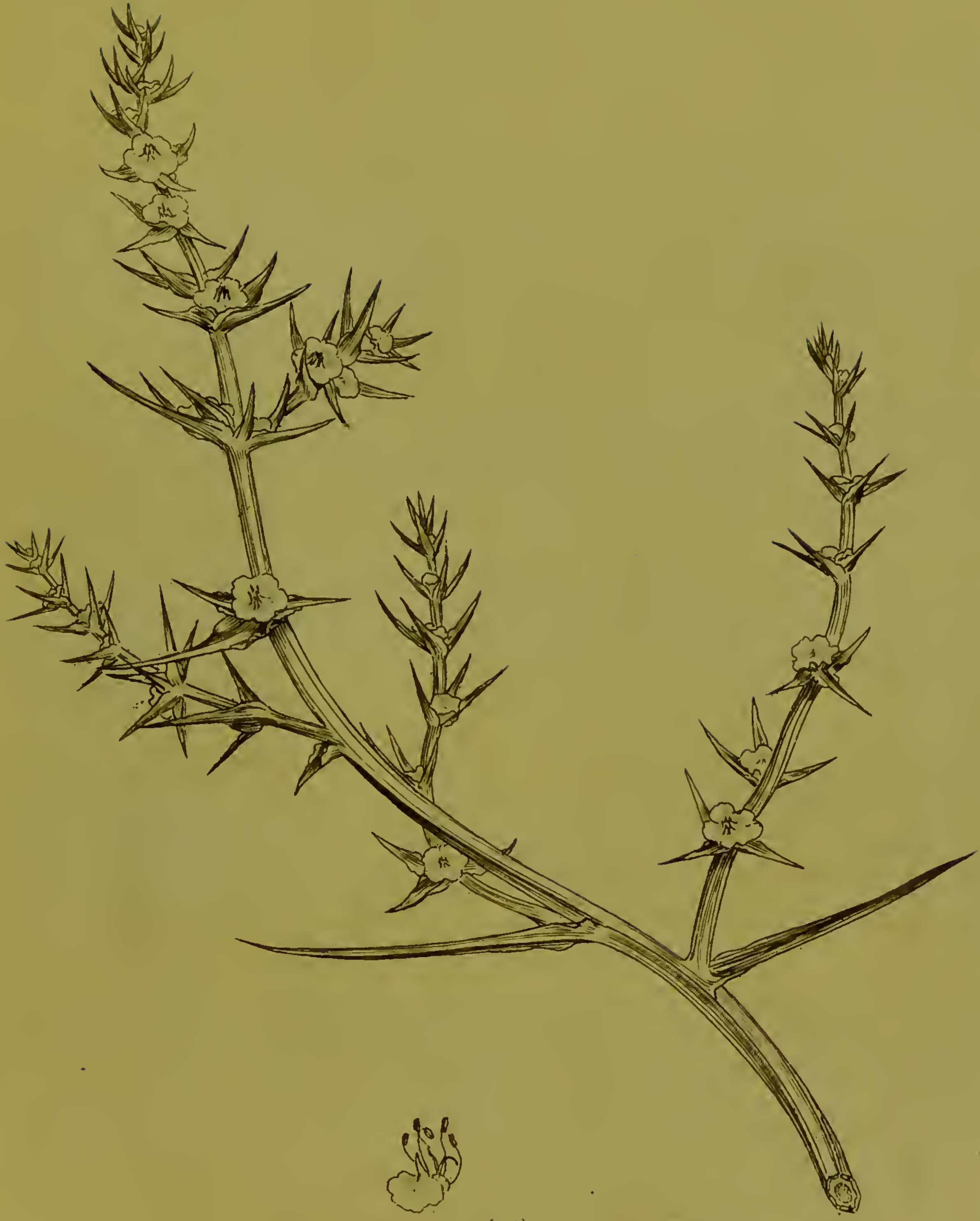
Claſs Pentandria. *Ord.* Digynia. *Lin. Gen. Plant.* 311.

Eſſ. Gen. Ch. *Cal.* 5-phyllus. *Cor.* 0. *Caps.* 1-ſperma. *Sem.* cochleatum.

Sp. Ch. S. herbacea decumbens, foliis ſubulatis ſpinoſis ſcabris, calycibus marginatis axillaribus.

THE root is annual: the ſtem is angular, branched, ſmooth, decumbent, and riſes about a foot in height: the leaves are long, narrow, awl-ſhaped, prickly, ſtand in ternaries upon the branches, and like the ſtem are frequently of a reddiſh hue: the flowers are ſeſſile, axillary, whitiſh, yellowiſh, or of a roſe colour: the calyx is membranous, and conſiſts of five obtuſe indented ſegments, each of which is furniſhed with a ſmall tooth-like proceſs at its baſe: it has no corolla, unleſs the calyx be conſidered as ſuch: the five filaments are ſhort, ſlender, inſerted into the diviſions of the calyx, and crowned with ſimple antheræ: the germen is globular, and ſupports two ſtyles with recurved ſtigmata: the capſule is oval, one-celled, involved in the calyx, and contains a large ſpiral ſeed formed like a ſnail-ſhell. It it is a native of Britain, and common on the ſea ſhore, flowering in July and Auguſt.

The annexed figure of the Kali is taken from a ſpecimen which grew laſt year in the Royal Garden at Kew, and therefore has more luxuriancy and beauty than it ever aſſumes in its wild ſtate, where its humble



Salsola Kali

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humble appearance might juſtify the epithet Seaweed, ſo contemptuouſly ſpoken of by the Latin Poet, "projecta vilior alga." Not only this, but various other plants, on being burned, are found to afford the foſſile alkali, and ſome in a greater proportion than the Kali,[a] conſequently have an equal if not a ſuperior claim to a place in this work.

Theſe are SALSOLA SATIVA, *Lin.* Salſola Souda, *Lofling.*[b] Kali hiſpanicum ſupinum annuum Sedi foliis brevibus, s. Kali d'Alicante, *Juſſieu.*[c] It grows abundantly on that part of the Spaniſh coaſt which is waſhed by the Mediterranean Sea. This ſpecies is deſervedly firſt enumerated by Profeſſor Murray, as it ſupplies all the beſt Soda conſumed in Europe, which by us is called Spaniſh or Alicant Soda, and by the Spaniſh merchants *Barrilla de Alicante.*

SALSOLA SODA, *Lin.* Kali majus, cochleato ſemine. *Bauh. Pin.* Le Salicor, *Marcorelle.*[d] *Jacquin Hort. Vind. tab.* 68. This ſpecies, which grows on the French Mediterranean coaſt, is much uſed in Languedoc for the preparation of this ſalt, which is uſually exported to Sicily and Italy.

SALSOLA TRAGUS, *Lin.* affords an ordinary kind of Soda, with which the French frequently mix that made in Languedoc: this adulteration is alſo practiſed by the Sicilians, who diſtinguiſh the plant by the term ſelvaggia.[e]

SALICORNIA HERBACEA, *Lin. Flor. Dan. tab.* 303. Conf. *Baſter, Opuſc. ſubſec. tom.* 2. *p.* 107. *Pallas, Reiſe durch Ruſſ. Reich. tom. i. p.* 479. Is common in ſalt marſhes, and on the ſea ſhore, all over Europe. Linnæus prefers the Soda obtained from this plant to that of all the others;[f] but though the quantity of foſſil alkali which it yields is very conſiderable, as a great portion of it is united with muriatic acid, it is mixed with much common ſalt.

SALICORNIA ARABICA, *Lin.* MESEMBRYANTHEMUM NODIFLORUM, *Lin.* PLANTAGO SQUARROSA, *Lin.* All theſe, according to Alpinus, afford this alkali. It has alſo been procured from ſeveral of the Fuci, eſpecially F. veſiculoſus, and diſtinguiſhed here by the name Kelp.† Various other marine plants might alſo be noticed as yielding Barilla or Soda by combuſtion;‡ but the principal are confined to the genus Salſola and that of Salicornia. The Salſola Kali, on the authority of Rauwolf, is the ſpecies from which the ſalt is uſually obtained in eaſtern countries.[g]

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[a] Why the name Kali is adopted in the London Pharmacopœia for the fixed vegetable alkali, we are unable to deviſe.

[b] *Spanſka Reſa, p.* 132. [c] *Mem. de l'Acad. de Sc. de Paris*, 1717. *p.* 73. *ſqq. tab.* 2.

[d] *Mem. preſ. à l'Acad. &c. tom.* 5. *p.* 531.

[e] Gronov. *Fl. orient. Rauwolfii, p.* 29. [f] Noſtratibus nulla aptior in hunc uſum planta, quam dicta, *Mat. Med. p.* 36.

It is to be regretted, that the different kinds of Soda which are brought to European markets, have not been ſufficiently analyſed to enable us to aſcertain with tolerable certainty the reſpective value of each; and indeed while the practice of adulterating this ſalt continues, any attempts of this kind are likely to prove fruitleſs: the beſt information on this ſubject is to be had from Juſſieu,[h] Marcorelle,[i] Cadet,[k] Borlaſe,[l] and Seſtini.[m] In thoſe places where the preparation of Soda forms a conſiderable branch of commerce, as on the coaſt of the Mediterranean, ſeeds of the Salſola are regularly ſown in a proper ſituation near the ſea,[n] which uſually ſhoot above ground in the courſe of a fortnight. About the time the ſeeds become ripe, the plants are pulled up by the roots, and expoſed in a ſuitable place to dry, where their ſeeds are collected: this being done, the plants are tied up in bundles, and burned in an oven conſtructed for the purpoſe, where the aſhes are then while hot continually ſtirred with long poles. The ſaline matter, on becoming cold, forms a hard ſolid maſs, which is afterwards broken in pieces of a convenient ſize for exportation.

According to chemical analyſis Soda generally contains a portion of vegetable alkali and neutral ſalts, as common ſalt, and ſometimes vitriolated tartar, or Glauber ſalt, likewiſe liver of ſulphur, and not unfrequently ſome portion of iron is contained in the maſs; it is therefore to be conſidered as more or leſs a compound, and its goodneſs is to be eſtimated accordingly. The Spaniſh Soda, of the beſt ſort, is in dark coloured maſſes, of a bluiſh tinge, very ponderous, ſonorous, dry to the touch, and externally abounding with ſmall cavities, without any offenſive ſmell, and very ſalt to the taſte; if long expoſed to the air, it undergoes a degree of ſpontaneous calcination. The beſt French Soda is alſo dry, ſonorous, brittle, and of a deep blue colour, approaching to black. The Soda, which is mixed with ſmall ſtones, which gives out a fetid ſmell on ſolution, and is white, ſoft, and deliqueſcent, is of the worſt kind.*

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† The preparation of this is fully deſcribed by Borlaſe. See *Obſervations on the State of the Iſlands of Scilly*, *p.* 118.

‡ To theſe we may add Batis maritima, (Vide *Jacquin Hiſt. Stirp. Amer. p.* 127.) which on the coaſt of Carthagena is found to have a very ſalt taſte, where it is prepared into ſoda, which is uſed for the purpoſe of making glaſs. The Carthaginians call this plant *barilla*.

[g] Alp. *Pl. Ægypt.* [h] *L. c.* [i] *L. c.* [k] Vide, *Mem. de l'Acad. &c.* 1767. *p.* 487. [l] *L. c.* [m] *Lettere della Sicilia, tom.* 3. *p.* 58. 76.

[n] According to the experiments of Du Hamel, the further from the ſea the ſeeds are ſown, the leſs foſſil alkali, and the more vegetable alkali the plants contain. Vide *Med. de l'Acad.* 1767. *p.* 233.

The method of purifying this ſalt is directed in the London Pharm. under the article of Natron præparatum, and in the Edinburgh Pharm. under that of Sal alkalinus fixus foſſilis purificatus: the pure cryſtals, thus formed of Alicant barilla, are colourleſs, tranſparent, lamellated, of a rhomboidal figure, and one hundred parts are found to contain twenty of alkali, ſixteen of aerial acid, and ſixty-four of water;[o] but upon keeping the cryſtals for a length of time, if the air be not excluded, the water evaporates, and they aſſume the form of a white powder. According to Imlin,[p] one ounce of water, at the temperature 62 of Fahr. diſſolves five drams and fifteen grains of the cryſtals.‡ The ſame author alſo found that this ſalt preſerved fleſh from putridity longer than common ſalt, though not ſo long as the vegetable alkali. Natron has been thought uſeful in ſcrophulous diſorders, but it is ſeldom given in its ſimple ſtate.

In combination with vitriolic acid this alkali forms Glauber ſalt, or Natron vitriolatum; with nitrous acid, cubic nitre; with marine acid, common ſalt; with the ſedative ſalt of Homberg, borax; with cream of tartar, Rochelle ſalt, or ſel ſaignette.

To enter fully on the peculiar properties, or chemical qualities, of this alkali, would lead us too far, and is properly the province of chemiſtry. It is in common uſe in the manufacture of glaſs and ſoap,

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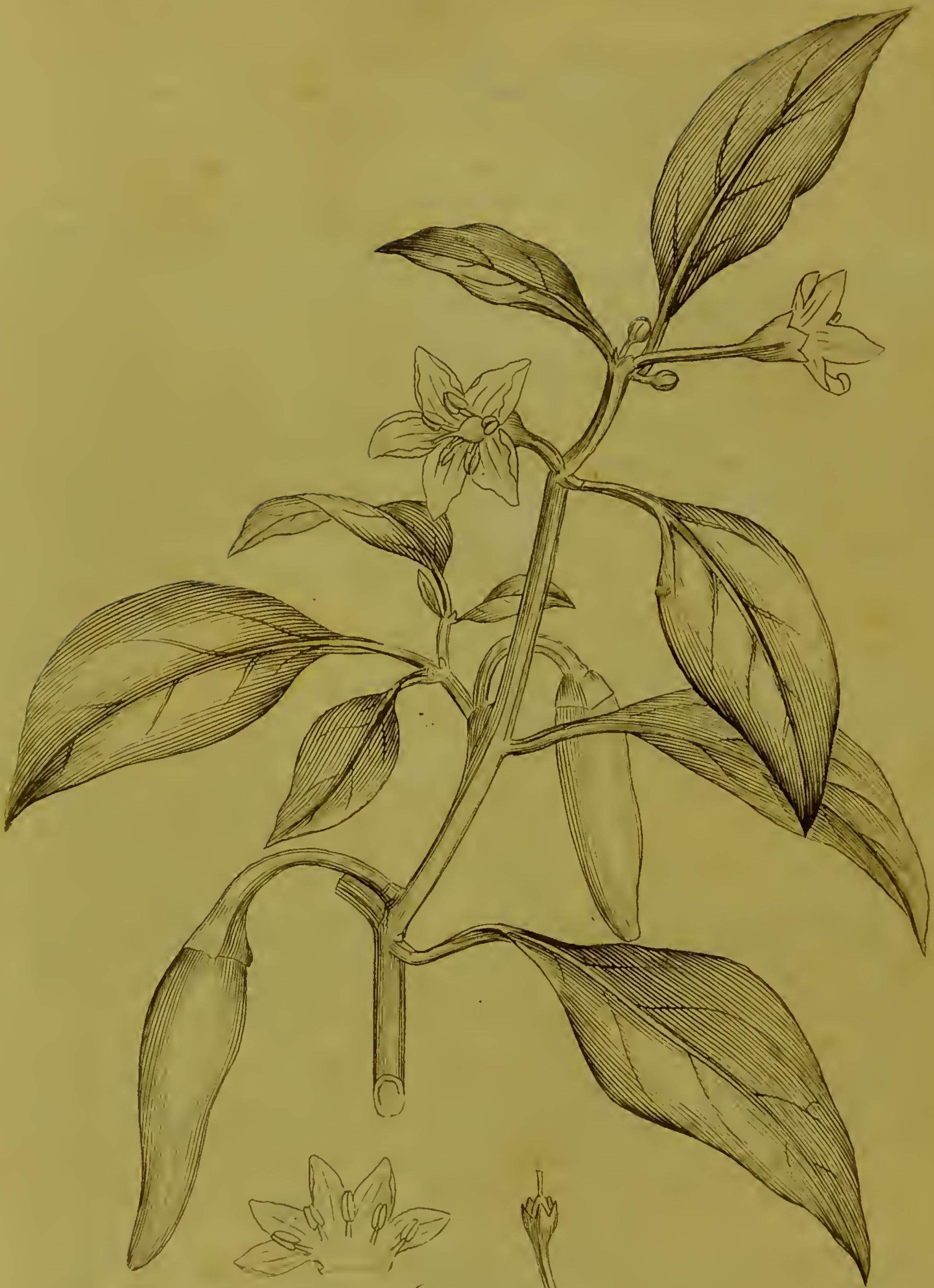
* For this, and almoſt the whole on this ſubject, we are obliged to the late Profeſſor Murray. See his *App. Med. vol.* 4.

[o] *Bergman in Scheffers.*

[p] *Diſſ. de Soda.* §. 2.

‡ Kirwan ſays, 2, 5 times its weight of water at this temperature are required. *Min. p.* 176.



Capsicum annuum

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reſinous and other ſubſtances, in gout, rheumatiſm, and various viſceral complaints. Soap is alſo externally employed as a reſolvent, and gives name to ſeveral officinal preparations.

CAPSICUM ANNUUM. ANNUAL CAPSICUM, Or, GUINEA PEPPER.

SYNONYMA. Piper indicum. *Pharm. Lond. & Edinb.* Piper Indicum vulgatiſſimum. *Bauh. Pin. p.* 102. *Raii Hiſt. p.* 676. Piper Calecutium ſive Capſicum oblongius. *J. Bauh. Hiſt. vol. ii. p.* 943. Capſicum longioribus ſiliquis. *Gerard Emac. p.* 364. Capſicum majus vulgatius, oblongis ſiliquis. *Park. Theat. p.* 355. Capſicum indicum. *Burm. Theſ. Zeyl. p.* 53.

α Capſicum ſiliquis longis propendentibus. *Tourn. Inſt.* 152.
Long-Podded Capsicum.

β Capſicum caule herbaceo, fructu rotundo glabro. *Mill. Dict.*
Cherry Capsicum.

γ Capſicum caule herbaceo, fructu ovato. *Mill. Dict.*
Olive Capsicum. *Aiton. Hort. Kew. vol. i. p.* 253.

Claſs Pentandria. *Ord.* Monogynia. *Lin. Gen. Plant.* 252.

Eſſ. Gen. Ch. *Cor.* rotata. *Bacca* exſucca.

Sp. Ch. C. caule herbaceo, pedunculis ſolitariis.

THE root is annual: the ſtem is thick, roundiſh, ſmooth, crooked, branched, and riſes four or five feet in height: the leaves are elliptical or egg-ſhaped, pointed, veined, ſmooth, and placed in no regular order upon long footſtalks: the flowers are ſolitary, white, and ſtand at the axillæ of the leaves upon long peduncles; the calyx is perſiſtent, angular, tubular, and cut at the extremity into five ſhort ſegments: the corolla is monopetalous, wheel-ſhaped, conſiſting of a ſhort tube, divided at the limb into five ſegments, which are ſpreading, pointed, and plaited: the five filaments are ſhort, tapering, and furniſhed with oblong antheræ: the germen is egg-ſhaped, and ſupports a ſlender ſtyle, which is longer than the filaments, and terminated by a blunt ſtigma: the capſule is a long conical pod, or berry, of a ſhining reddiſh colour, ſeparated into two cells, which contain ſeveral flattiſh kidney-ſhaped ſeeds. It is a native of both Indies, and flowers in June and July.

This ſpecies, and all its varieties noticed above, were cultivated by Gerard, and are now commonly produced in the garden ſtoves of this country: the fruit varies both in ſhape and colour, but that which is of a conical form, and of a reddiſh or orange colour, is preferred. Its taſte is extremely pungent and acrimonious, ſetting the mouth as it were on fire, and this ſenſation is of conſiderable duration. "It gives out its pungency to rectified ſpirit, together with a pale yellowiſh red tincture: the ſpirit, gently diſtilled off, has no conſiderable impregnation from the capſicum: the remaining extract is inſupportably fiery."[a]

The uſe of this and the other ſpecies of Capſicum, which have long been employed for culinary purpoſes, have but lately been adopted as a medicine. Cayenne pepper, which is now much uſed at our tables, is the fruit of Capſicum baccatum of Linnæus, (Bird-pepper) and differs not materially in its effects from that of the ſpecies here figured, for which it is frequently ſubſtituted. In hot climates, particularly in the Weſt Indies,[b] and in ſome parts of Spaniſh America, the Capſicum is eaten both with animal and vegetable food in large quantities, and it enters ſo abundantly into their ſauces, that to a perſon unaccuſtomed to eat them, their taſte is intolerably hot.[c] But in the climates of which the Capſicum is a native, we are told that the free uſe of it is a ſalutary practice, being found to ſtrengthen the ſtomach, aſſiſt digeſtion, and correct that putreſcent colliquation of the humours ſo common in hot climates. As an aromatic of the moſt acrid and ſtimulant kind it certainly may be found efficacious in ſome paralytic and gouty caſes, or to promote excitement, where the bodily organs are languid and torpid.

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[a] *Lewis, M. M. p.* 508.

[b] Vide *Browne's Jamaica, p.* 176.

[c] At Peru eſpecially. Vide, *Frezier Voyage de la Mer du Sud. t.* 1. *p.* 262.

It has been ſucceſsfully exhibited in cynanche maligna, and in what by Dr. Mackitrick calls cachexia africana,[d] which he conſiders as the moſt frequent and fatal prediſpoſition to diſeaſe among negroes. The doſe he directs is from ſix to eight grains.

Bergius gave the ſeeds of Capſicum with great ſucceſs in inveterate intermittents.[e]

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[d] *Duncan's Ed. Diſpenſ. p.* 257.

[e] He preſcribes them as follows:

℞ ſem. pip ind gr vi. bacc. lauri ſcrup. ii. f. pulvis, divedendus in tres partes æquales; quarum prima portio ſumenda incipiente primo rigore; ſecunda poſtridie eadem hora; tertia vero tertio die. *M. M. p.* 144.

CHENOPODIUM VULVARIA. STINKING GOOSE-FOOT, Or, ORACHE.

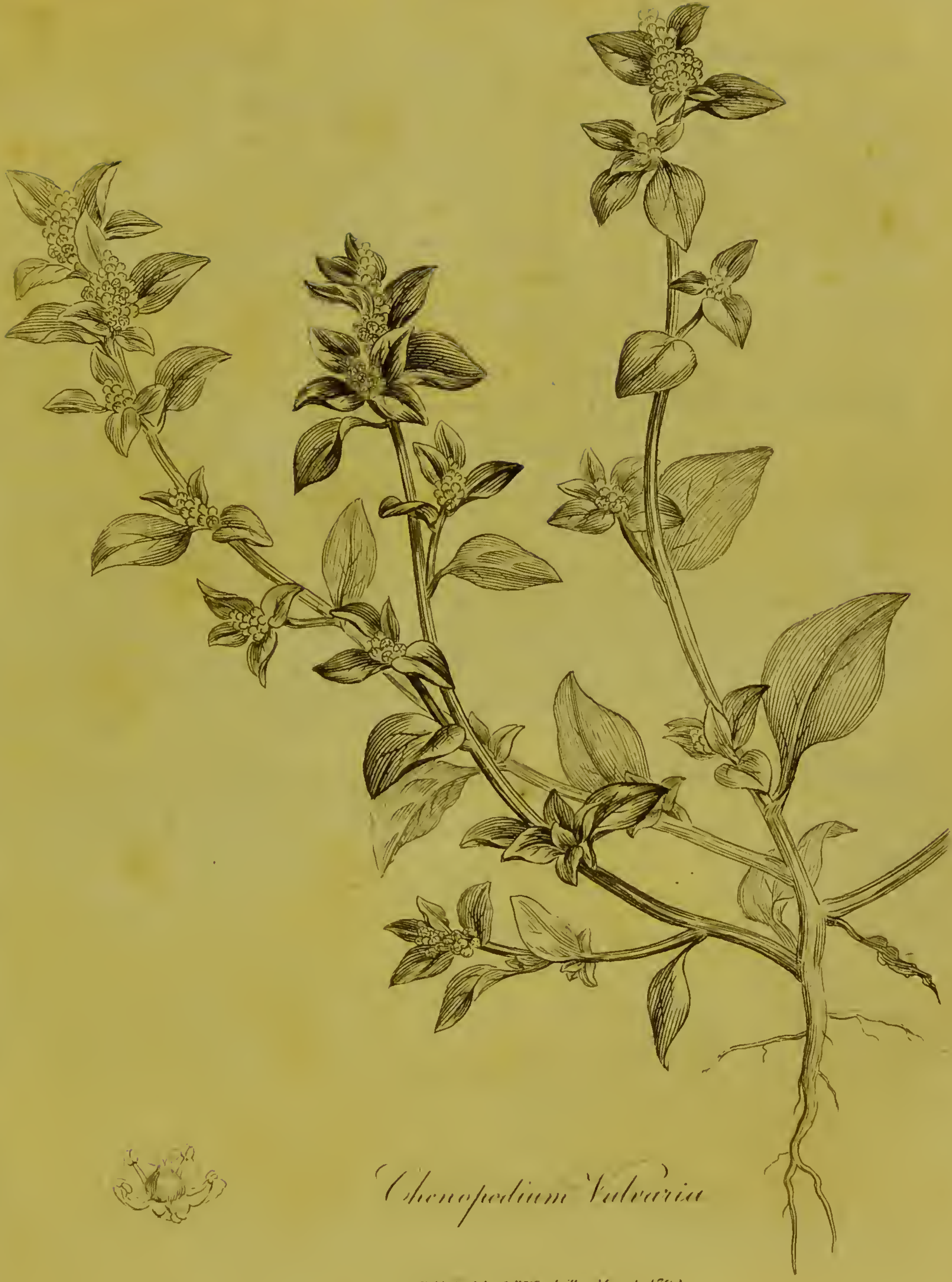
SYNONYMA. Atriplex fœtida. *Pharm. Edinb. Bauh. Pin. p.* 119. Atriplex olida. *Gerard Emac. p.* 327. *Raii Hiſt. p.* 198. Blitum fœtidum Vulvaria dictum. *Raii Synop. p.* 156. Atriplex olida ſive ſylveſtris fœtida. *Park. Theat. p.* 749. Chenopodium caule diffuſo, foliis obtuſe lanceolatis. *Hal. Stirp. Helv. n.* 1577. Chenopodium olidum. *Curt. Flor. Lond.* Chenopodium Vulvaria. *Hudſ. Ang. p.* 107. *Lightf. Scot. p.* 149. *Withering. Bot. Arr. p.* 255.

Claſs Pentandria. *Ord.* Digynia. *Lin. Gen. Plant.* 309.

Eſſ. Gen. Ch. *Cal.* 5-phyllus, 5-gonus. *Cor.* 0. *Sem.* 1, lenticulare, ſuperum.

Sp. Ch. C. foliis integerrimis rhomboideo-ovatis, floribus conglomeratis axillaribus.

THE root is annual: the ſtems are procumbent, channelled, branched, and grow from ſix to twelve inches in length: the leaves are numerous, entire, of an irregular rhomboidal form, or often egg ſhaped, veined, of a mealy appearance, and ſtand alternately upon ſhort footſtalks: the flowers are very ſmall, of a light green colour, and placed in cluſters at the alæ of the leaves: the calyx conſiſts of one pentagonal leaf, cut into five pointed concave diviſions: there is no corolla: the five filaments are ſmall, tapering, about the length of the ſegments of the calyx, and furniſhed with double round antheræ: the germen is orbicular, and ſupports two ſtyles, terminated with obtuſe ſtigmata: the ſeed is lenticular, and is incloſed by the calyx, which



Chenopodium Vulvaria

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which ſupplies the place of a capſule. It is uſually found about old walls and rubbiſh, flowering in Auguſt.

This plant, in its recent ſtate, has a nauſeous taſte, and a ſtrong offenſive ſmell, reſembling that of putrid ſalt fiſh, and remaining long on the hands after touching the herb.* " It gives a ſtrong impregnation to water both by infuſion and diſtillation : the ſmell is extracted likewiſe by rectified ſpirit, and by this menſtruum in ſome degree covered." This plant has been expunged from the Materia Medica of the London Pharmacopœia, but it is ſtill retained in that of Edinburgh. Its virtues are aſcribed to its remarkable fetor, from which it is inferred by Dr. Cullen to be a powerful antiſpaſmodic, and eſpecially recommended in hyſterical affections.

Dr. Cullen ſays, " it has been frequently employed in this country
" with advantage ; not however ſo frequently as might be expected,
" as it is a plant, in its freſh ſtate, not always ready at hand, and in
" its dry ſtate it loſes all its ſenſible qualities. It can only be employed
" therefore in its recent ſtate, and the moſt convenient formula is that
" of a conſerve ; and as it is not always eaſy to reconcile our patients
" to it even in that ſtate, it is not employed ſo often as I could wiſh."
Mat. Med. vol. ii. p. 365.

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* Odoris viroſi intolerabilis, ut qui vel attactu levi manus ita inficit, ut longo tempore vix poſſit elui. *Raii Hiſt. p.* 198.

URTICA DIOICA. COMMON NETTLE.

SYNONYMA. Urtica. *Pharm. Lond. & Edinb.* Urtica urens maxima. *Bauh. Pin. p.* 232. Urtica urens. *Gerard. Emac. p.* 706. Urtica major vulgaris & media ſylveſtris. *Park. Theat. p.* 440. Urtica racemifera major perennis. *Raii Synop. p.* 139. *Hiſt. p.* 160. Urtica ſtirpibus ſexu diſtinctis, foliis ſerratis ovato-lanceolatis productis. *Hal. Stirp. Helv. n.* 1614. Urtica dioica. *Hudſ. Ang. p.* 417. *Lightf. Scot. p.* 578. *Withering Bot. Arr. p.* 1071. *Con. Flor. Dan. p.* 746. *Curt. Flor. Lond.*

Claſs Monoecia. *Ord.* Tetrandria. *Lin. Gen. Plant.* 1054.

Eſſ. Gen. Ch. MASC. *Cal.* 4-phyllus. *Cor.* 0. *Nectarium* centrale, cyathiforme.

FEM. *Cal.* 2-valvis. *Cor.* 0. *Sem.* unicum, nitidum.

Sp. Ch. U. foliis oppoſitis cordatis, racemis geminis.

THE root is perennial, creeping, yellowiſh, furrowed, tough, and ſupplied with joints, from which proceed many fibres: it ſends up ſeveral ſtalks, which are erect, very little branched, obtuſely quadrangular, furrowed, purpliſh, beſet with rigid hairs, and uſually riſe from two to four feet in height: the leaves are heart-ſhaped, pointed, widely ſerrated, wrinkled, veined, covered with ſharp ſtinging hairs, and ſtand oppoſitely upon ſlender footſtalks: at the baſe of the leaf-ſtalks there are four ſtipulæ, which are narrow, ſpreading, and on the underſide channelled: the flowers are dioicous, or male and female on different plants, growing in branched pendulous hairy racemi, or cluſters of four together: the calyx of the male flower is cut into four ſmall egg-ſhaped obtuſe ſegments: there is no corolla: the nectarium is turbinated, almoſt tranſparent, blunt, perforated at the top, and placed in the centre of the flower: the filaments

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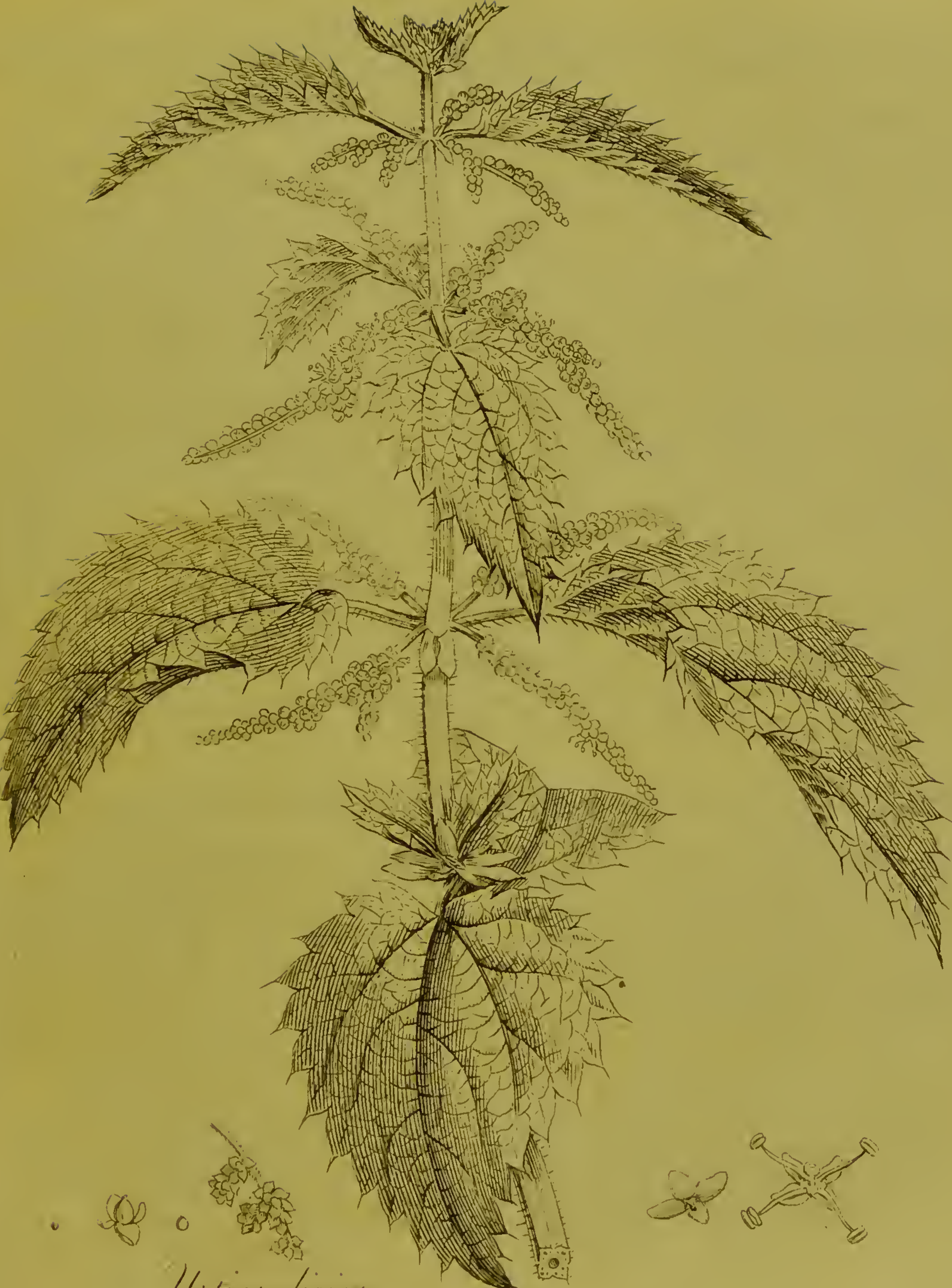

Urtica dioica

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ments are four, tapering, of the length of the calyx, and furniſhed with two-celled antheræ: the calyx of the female flower is compoſed of two valves, which are egg-ſhaped, concave, erect, and permanent: there is no corolla: the germen is oval, without a ſtyle, but ſupplied with a woolly ſtigma: the ſeed is ſingle, compreſſed, blunt, ſhining. It is very common about old walls, ſides of roads, and ditch banks, flowering in July.

The Urtica [a] is well known; and though generally deſpiſed as a noxious weed, has been long uſed not only for medical but for culinary and œconomical purpoſes.[b] As a ſtyptic it was formerly much uſed; and we are told of various hæmorrhagic affections in which it was ſuccesſfully employed. It is alſo ſaid to manifeſt a diuretic character, and to be uſeful in calculous complaints, ſcurvy, gout, jaundice, &c. But theſe accounts have little credit, and the nettle is now conſidered as a ſimple oleraceous plant, and when young is found to be a good ſubſtitute for greens, or other pot-herbs.

The ſharp hairs [c] upon the freſh leaves of nettles readily enter the ſkin, and thereby produce conſiderable irritation and inflammation, and therefore have been employed in the way of a rubifacient, a practice which is termed urtication, and found of advantage in re-

[a] "Urtica, ab urendo dicta, quod pruritum & puſtulas igni ſimiles excitet." *Bauh. Pin.*

[b] "The young ſhoots, in the ſpring, are boiled and eaten by the common people inſtead of cabbage-greens. *Lightf. l. c.* The ſtalks may be dreſſed like flax or hemp for making ropes, nets, cloth, paper, &c. a practice not uncommon in ſome parts of Ruſſia and Siberia. Vide Falk, *Beyträge zur topogr. Kenntniſs des Ruſſ. Reichs, vol.* 2. *p.* 254. *Vet. Acad. Handl.* 1747. *p.* 59. *Peterſb. Journ.* 1778. *p.* 370. and others. The Nettle is ſaid to be poiſonous to frogs; for if the plant be thrown into a veſſel where theſe animals are confined, they ſoon begin to ſwell, and in a few days periſh. Vide *Hagſtröm Svar om Biſkötſel, p.* 150.

[c] The ſtings are very curious microſcopic objects: they conſiſt of an exceedingly fine pointed tapering hollow ſubſtance, with a perforation at the point, and a bag at the baſe. When the ſting is preſſed upon, it readily punctures the ſkin, and the ſame preſſure forces up from the bag an acrimonious fluid, which inſtantly enters into the wound, and excites a burning inflammation. See Hooke, *Diſcoveries by the microſcope, p.* 22. *tab.* 12. Guettard, *Mem. de L'Acad. de Sc. de Paris,* 1751. *p.* 350.

ſtoring excitement in paralytic limbs,[d] or in other caſes of torpor or lethargy.[c]

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[d] *Celſus ed. Kraus. p.* 179. [c] Scopoli *Fl. Carn. ed.* 1. *p.* 428. Aretæus *curat. acut. lib. i. cap.* 2. *ed. Boerh. p.* 80. H. Piſo in *Spicileg. curat. p.* 6. 9. Languentis veneris incitamentum recentis Urticæ olim fuere, quorſum reſpicit Petronius, (*Satiricon ed. De Salas. p.* 84) (alii que) Vid. *Murray App. Med. vol.* 4. *p.* 592.

MELISSA OFFICINALIS. COMMON BALM.

SYNONYMA. Meliſſa. *Pharm. Lond.* & *Edinb. Gerard. Emac. p.* 689. *Raii Hiſt. p.* 570. Meliſſa hortenſis. *Bauh. Pin. p.* 229. *Tourn. Inſt.* 193. Meliſſa vulgaris. *Park. Theat. p.* 40. Meliſſa vulgaris odore Citri. *J. Bauh. Hiſt. iii. p.* 232. Meliſſa petiolis unifloris, folio brevioribus, foliis cordatis ſerratis. *Hal. Stirp. Helv. n.* 242.

β Meliſſa *romana*, floribus verticillatis ſeſſilibus, foliis hirſutis. *ROMAN BALM.* *Mill. Dict.*

Claſs Didynamia. *Ord.* Gymnoſpermia. *Lin. Gen. Plant.* 728.

Eſſ. Gen. Ch. *Cal.* aridus, ſupra planiuſculus: lab. ſuperiore ſubfaſtigiato. *Corollæ* lab. ſuper. ſubfornicatum, 2-fidum; lab. inf. lobo medio cordato.

Sp. Ch. M. racemis axillaribus verticillatis: pedicellis ſimplicibus.

THE root is perennial, fibrous: the ſtems are erect, quadrangular, ſmooth, branched towards the bottom, and uſually riſe two or three feet in height: the leaves are heart or egg-ſhaped, ſpreading, rough, ribbed, veined, deeply ſerrated, of a bright green colour, and placed in pairs upon footſtalks, which of the lower leaves are very long: the flowers are white or yellowiſh, placed in whorls or cluſters at the

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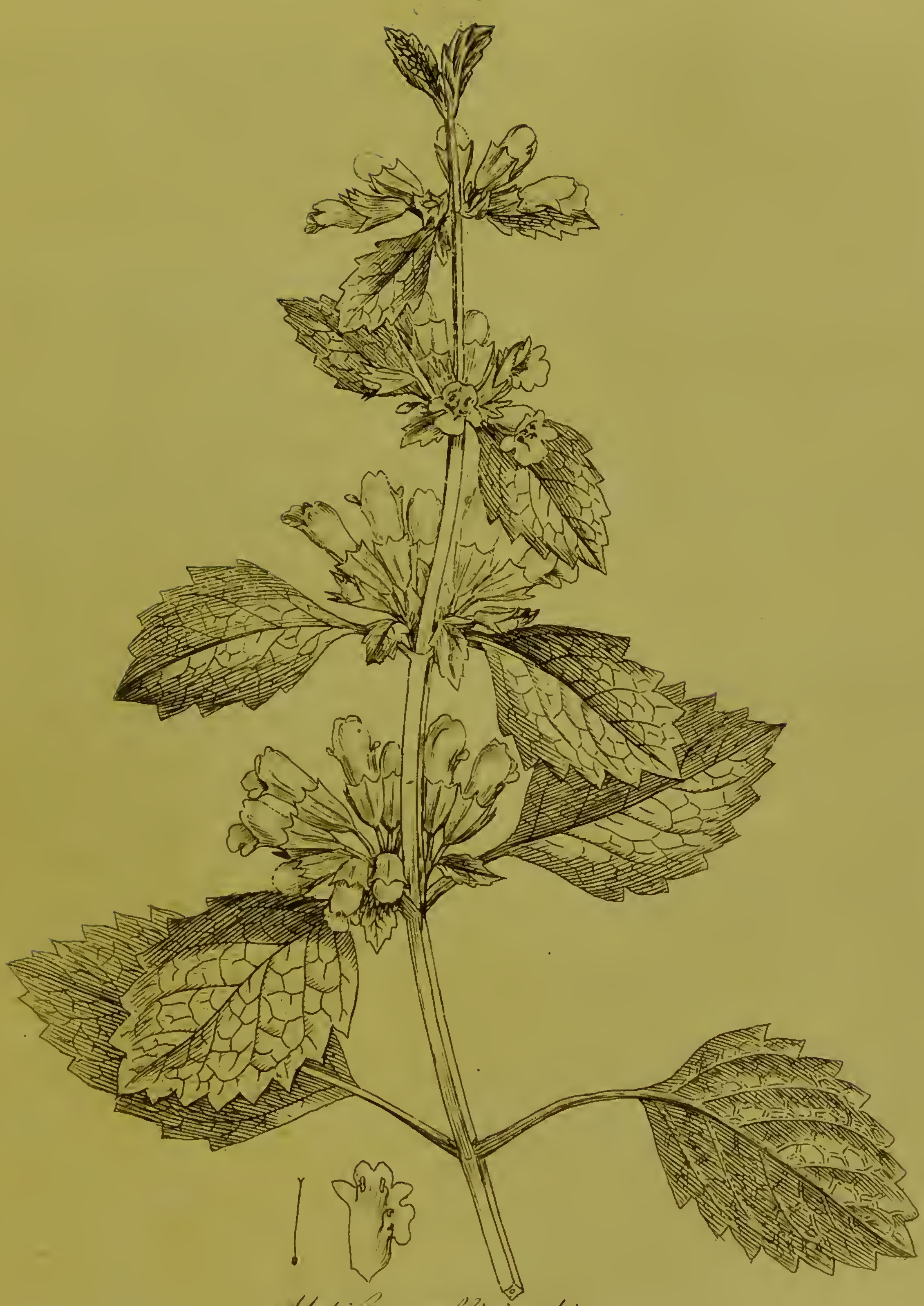

Meliſsa officinalis

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alæ of the leaves, and appear in June and July: the bracteæ are oblong, notched, hairy, and placed at the peduncles: the calyx conſiſts of one tubular pentangular leaf, divided at the brim into two lips, of theſe the upper is larger, and divided at the extremity into three ſegments; the under is ſhorter at the margin, and cut into two teeth: the corolla is monopetalous, bilabiated, tubular: the upper lip is the ſhorter, with a notch at the apex; the lower is cleft into three parts, of which the middlemoſt is the largeſt: the filaments are four, two long and two ſhort, and furniſhed with oblong antheræ: the germen divides into four parts, from the centre of which iſſues a long ſlender ſtyle, crowned with a cleft ſtigma: the ſeeds are four, egg-ſhaped, and lodged at the bottom of the calyx.

Schultz, who has profeſſedly written on this plant,* was unable to ſay by what name it was known to the ancients. The Μελισσοφυλλον ſeu Μελιτταινα, of Dioſcorides, which has been by ſome ſuppoſed to be our Meliſſa, is by Nicander referred to the Marrubium.‖

The Balm is a native of the ſouthern parts of Europe, eſpecially in mountainous ſituations, but it is very common in our gardens, and was cultivated in that of Gerard previous to the year 1596. The herb, in its recent ſtate, has a weak roughiſh aromatic taſte, and a pleaſant ſmell, ſomewhat of the lemon kind, and hence this ſpecies has been named Meliſſa odore citri.

"On diſtilling the freſh herb with water, it impregnates the firſt runnings pretty ſtrongly with its grateful flavour: when large quantities are ſubjected to the operation at once, there ſeparates and riſes to the ſurface of the aqueous fluid a ſmall portion of eſſential oil, in colour yellowiſh, and of a very fragrant ſmell." [a]

Balm was formerly eſteemed of great uſe in all complaints thought to proceed from a diſordered ſtate of the nervous ſyſtem: thus it was very generally recommended in melancholic and hypochondriacal affections, and in the opinion of Paracelſus, the *primum ens Meliſſæ* promiſed a complete renovation of man: even Hoffman and Boerhaave, who were probably biaſſed by the Arabian phyſicians, deemed it an efficacious remedy.[b] Simon Paulli[c] and others ſpeak of its effects as an emmenagogue; but neither this, nor indeed any other medicinal power, is now attributed to Balm. Prepared as tea, however, it makes a grateful diluent drink in fevers, and in this way it is commonly uſed either by itſelf or acidulated with the juice of lemons.

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* J. Hen. Schultz, *De Meliſſa*, *anno* 1739.

‖ *Theriac. v.* 554. 555.

[a] *Lewis*, *M. M. p.* 417.

The eſſential oil, which Hoffman ſuppoſes to be a powerful corroberant of the nervous ſyſtem, probably poſſeſſes no qualities peculiarly different from many other aromatics and cordials.

[b] *Quad. bot. p.* 436.

[c] Fr. Hoffman, *Diſſ. de remed. domeſt.* §. 20. Boerh. *Chem. T. ii. p.* 67.

ANEMONE PRATENSIS. MEADOW ANEMONE; Or, PASQUE FLOWER.

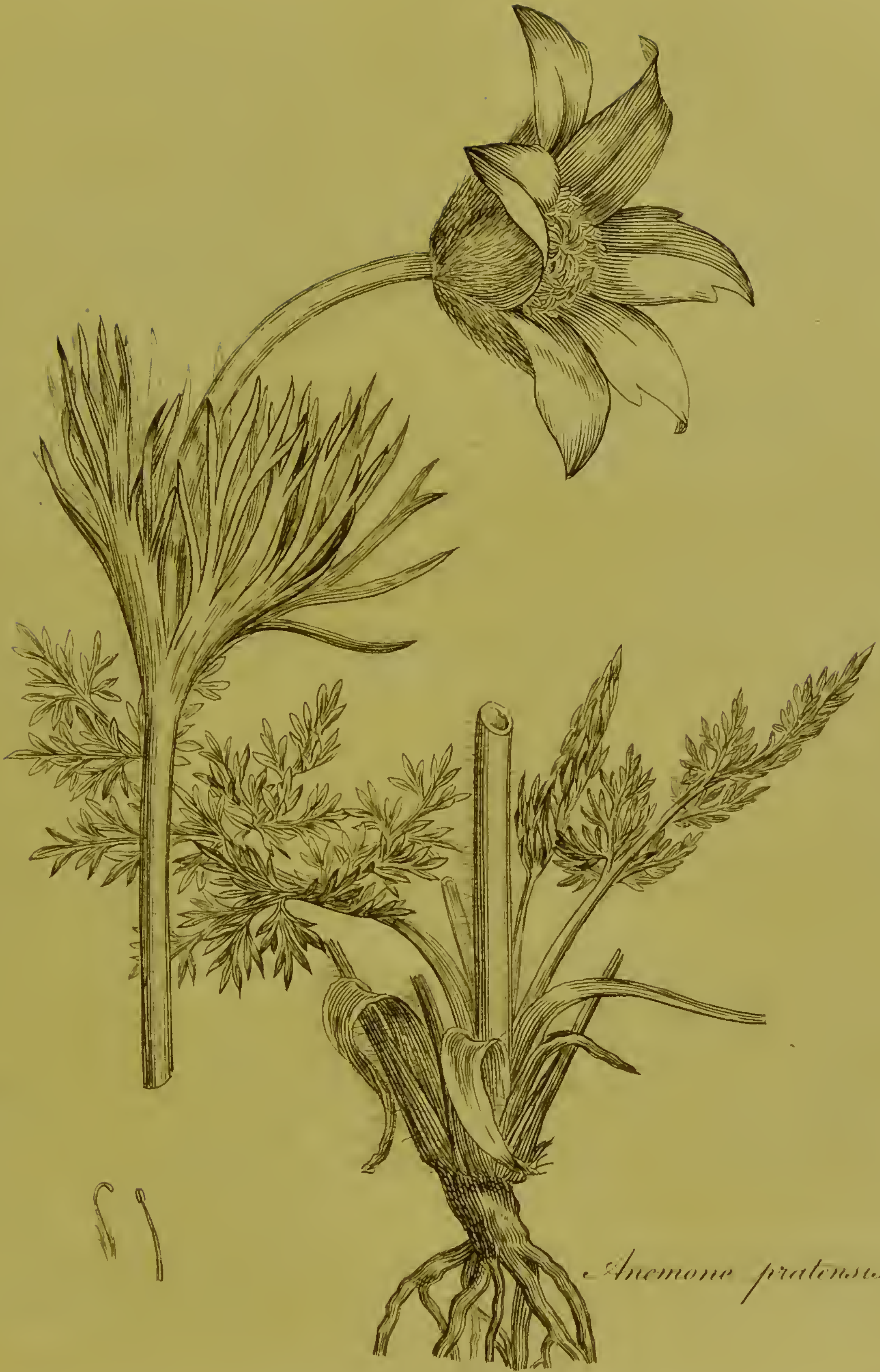
SYNONYMA. Pulſatilla nigricans. *Pharm. Edinb.* Pulſatilla flore minore nigricante. *Bauh. Pin. p.* 177. Pulſatilla flore minore. *Gerard. Emac. p.* 386. Pulſatilla vulgaris, ſaturatiore flore. *Cluſ. Hiſt. i. p.* 246. Pulſatilla flore clauſo obſoleto, petalis reflexis. *Helw. pulſ. p.* 65. *t.* 11. Pulſatilla foliis decompoſitis pinnatis, flore pendulo, limbo reflexo. *Hort. Cliff.* 223. A. pratenſis. *Flor. Dan.* 611.

Claſs Polyandria. *Ord.* Polygynia. *Lin. Gen. Plant.* 694.

Eſſ. Gen. Ch. *Cal.* 0. *Petala* 6-9. *Sem.* plura.

Sp. Ch. A. pedunculo involucrato, petalis apice reflexis, foliis bipinnatis.

THE root is perennial, thick, ſhort, and ſends off ſeveral ſtrong fibres: the flower ſtem is ſmooth, beſet with ſoft hairs, near the top furniſhed with a laciniated involucrum, and riſes about ſix or eight inches



Anemone pratensis

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inches in height: the leaves are radical, bipinnated; ſegments narrow, ſhort, linear, and of a glaucous green colour: it has no calyx: the petals are ſix, oblong, hairy, of a blackiſh purple colour, and their apices are turned backwards: the filaments are numerous, ſlender, about half the length of the petals, and furniſhed with yellow antheræ: the germens are numerous, collected into a bundle, and ſupplied with long ſtyles, terminated by tapering blunt ſtigmata: the ſeeds are placed on the common receptacle, and retain their ſtyles, which, when the ſeeds go off, reſemble long downy tails.

This Anemone is a native of Germany, where it grows in open fields, and flowers in May. It was firſt cultivated in England by Mr. Miller in 1731, and as we now find it in our gardens, it very much reſembles the Anemone Pulſatilla,[a] which grows wild in this country, and would doubtleſsly prove a good ſubſtitute for the A. pratenſis: the principal diſtinctions between theſe ſpecies, as they grow naturally, are taken from the flower, which in the A. pratenſis is more pendulous, ſmaller, of a darker colour, and has the apices of the petals reflexed, the ſtem alſo is ſaid to be leſs hairy, and ſhorter than that of the Pulſatilla.[b]

This plant, in its recent ſtate, has ſcarcely any ſmell, but its taſte is extremely acrid, and when chewed, corrodes the tongue and fauces; and the dried plant likewiſe ſtill retains a conſiderable ſhare of acrimony. It alſo appears from ſome experiments to contain a camphoraceous matter, which was obtained in the form of cryſtals, of an unctuous taſte, and very inflammable.[c]

This plant, like ſeveral others of great activity, has been received into the Materia Medica of the Edinburgh Pharmacopœia, upon the authority of Baron Stoerck, who recommends it as an effectual remedy for moſt of the chronic diſeaſes affecting the eye, particularly amauroſis, cataract, and opacity of the cornea, proceeding from

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[a] An elegant ſpecimen of this plant is correctly figured in *Engliſh Botany*, fig. 51. from which it may be ſeen how cloſely it reſembles that here annexed, which we obtained through the favour of Mr. Curtis.

[b] We might alſo add, upon the authority of the *Flor. Dan.* that the leaves of the *pratenſis* are ſomewhat tomentoſe, while thoſe of the Pulſatilla are of a bright green. See plates 153. and 611.

[c] See *Hann. Mag.* 1779. *n.* 105.

various cauſes.[d] He likewiſe found it of great uſe in venereal nodes, nocturnal pains, ulcers, caries, indurated glands, ſuppreſſed menſes, ſerpiginous eruptions, melancholy, and palſy. The Baron himſelf, who had for two years ſuffered much from a violent contuſion of his eye, took this remedy, which he ſoon found occaſioned a ſevere lancinating pain in the part affected: this he conſidered as a favourable omen of the ſpecific action of the plant; an opinion which was afterwards confirmed in a great number of patients. Six caſes of amauroſis, three of cataract, and ſeven of affections of the cornea, we are told were either entirely cured, or greatly benefited, by the exhibition of this remedy. Several caſes proving its ſucceſs in the other diſorders which we have noticed above, eſpecially thoſe of ſyphilis, are alſo related by the Baron. Many German phyſicians have ſince tried the effects of this medicine in diſeaſes of the eyes, and with ſucceſs; of theſe we may mention Guldbrand,[e] Hotz,[f] Mohrenheim:[g] ſeveral others however bear teſtimony of its inefficacy in theſe diſeaſes, as Schmucker,[h] Bergius,[i] Richter,[k] who increaſed the doſe of this vegetable even beyond that directed by Stoerck. Notwithſtanding this, Dr. Cullen ſays, "I would ſtill recommend it to "the attention of my countrymen, and particularly to a repetition "of trials in that diſeaſe, ſo frequently otherwiſe incurable, the "amauroſis. The negative experiments of Bergius, and others, are "not ſufficient to diſcourage all trials, conſidering that the diſeaſe "may depend upon different cauſes; ſome of which may yield to "remedies, though others do not."[l]

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[d] *Lib. de Pulſatilla nigric.*

[e] Tode and Nielſen *Diſſ. de præſtantiſs. ratione illuſtrandi Mat. Med. p.* 11.

[f] Jo. Iac. Zimmermann. *Diſſ. obſ. circa Mercur. Ext. Cicut. et Pulſatill.* §. 14. Argent. 1779.

[g] *Chirurg. Beob. T.* I. & II.

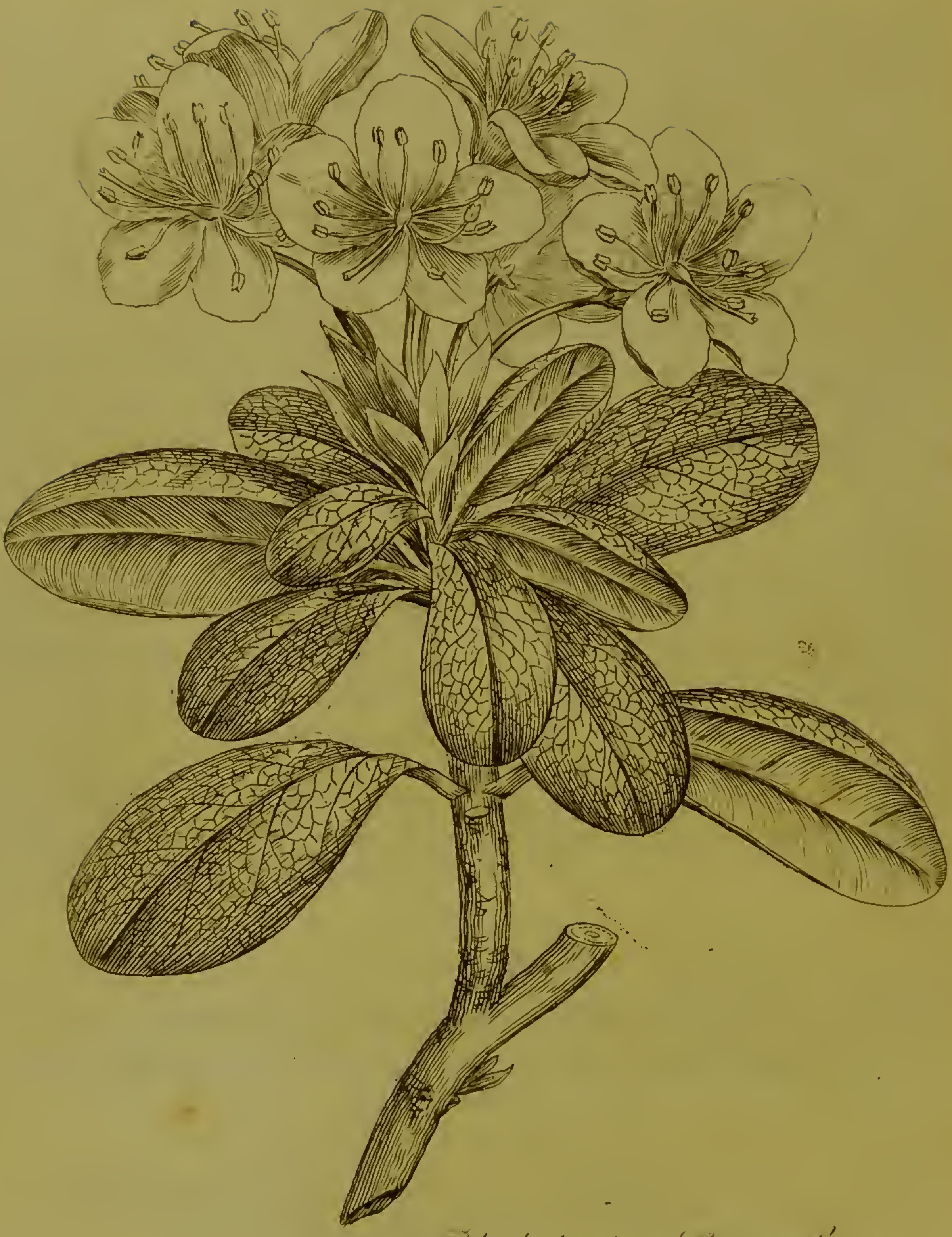
[h] In *verm. chir. Schriſt. t. ii. p.* 26.

[i] *Mat. Med. p.* 491.

[k] Aug. Gottl. Richter *Chir. Bibl. vol.* 6. *p.* 584.

[l] *Mat. Med. vol. ii. p.* 216.

Every



Rhododendron Chrysanthum

Publiſhed by Dr. Woodville June 1, 1792

Every part of the plant, except its root, is ordered for medicinal uſe, and was by Baron Stoerck prepared for this purpoſe into an extract, a diſtilled water, and an infuſion; but the firſt form ſeems to have been preferred, and was given from ſeven grains to three or four times that quantity, twice or thrice a day. In large doſes it frequently excited nauſea and vomiting, or produced griping pains of the bowels, and looſeneſs, and very generally proved diuretic. The fluid preparations of the plant are likewiſe recommended for external uſe in ulcers and complaints of the ſkin. The manner of preparing the extract is given in the Edinburgh Pharmacopœia.

RHODODENDRON CHRYSANTHUM. YELLOW FLOWERED RHODODENDRON.

SYNONYMA. Rhododendron. *Pharm. Edinb.* Andromeda foliis ovatis, utrinque venoſis corollis campanulatis obliquis. *Gmelin, Flor. Sib. iv. p.* 121. *tab.* 54. Rhod. Chryſ. *Pallas, It. vol. iii. p.* 369. *App. p.* 792. *n.* 87. *tab. N. fig.* 1. 2. *Kolpin. monogr. cum figura Pallaſii.* R. foliis ovatis ſcabris, margine reflexis, ſubtus glabris, umbellis terminalibus, corollis flavis irregularibus. *Flora Roſſica, tom. i. p.* 44. *tab.* 30.

Claſs Decandria. *Ord.* Monogynia. *Lin. Gen. Plant.* 548.

Eſſ. Gen. Ch. *Cal.* 5-partitus. *Cor.* infundibulif. *Stam.* declinata. *Caps.* 5-locularis.

Sp. Ch. R. foliis oblongis impunctatis ſupra ſcabris venoſiſſimis, corolla rotata irregulari, gemma florifera ferrugineo-tomentoſa. *Supp. Plant.* 237.

THIS beautiful ſhrub ſends off ſpreading branches, which are covered with brown bark, and riſe about a foot in height: the leaves are oblong, obtuſe, thick, veined, reflexed at the margin, on the upper ſide of a deep green, beneath ferruginous, or glaucous, and ſurrounding the branches upon ſtrong footſtalks, which ariſe from between the imbricated ſtipular ſquamæ: the flowers are large, yellow, and terminate the branches upon long peduncles, forming umbels: the calyx is perſiſtent, divided into five teeth: the corolla is monopetalous, wheel-ſhaped, inclining, irregularly divided at the limb into five roundiſh ſpreading ſegments: the ten filaments are ſlender, ſpreading, nearly of the length of the corolla, and furniſhed with oval antheræ: the germen is pentagonal, indented, and ſupports a ſtyle, which is longer than the filaments, and terminated by an obtuſe ſtigma: the capſule is egg-ſhaped, ſomewhat angular, and divided into five cells, which contain numerous ſmall ſeeds.

This ſpecies of Rhododendron has not yet been introduced into Britain: it is a native of Siberia, affecting mountainous ſituations, and flowering in June and July.

This plant, not being found in Murray's App. Medicaminum, was by miſtake omitted in our arrangement of the plants according to their natural orders, where it ought to ſtand in that of Bicornes, Order xvii.

This plant, and its medicinal effects, were firſt deſcribed in the year 1747, by Gmelin and Steller,[a] who mention it as frequently and ſucceſsfully uſed in Siberia and other northern ſituations of which it is a native, for the cure of rheumatiſm, and other painful affections of the joints. Little attention however was paid to this remedy till the year 1779, when it was ſtrongly recommended by Koelpin as an efficacious medicine not only in rheumatiſm, and gout but even in venereal caſes;[b] and it is now very generally employed in chronic rheumatiſms in various parts of Europe.[c] The leaves, which are the part directed for medicinal uſe, have a bitteriſh ſubaſtringent taſte, and, as well as the bark and young branches, manifeſt a degree of acrimony. Taken in large doſes they prove a narcotic poiſon, producing thoſe ſymptoms which we have deſcribed as occaſioned by many of the order Solanaceæ.[d]

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[a] It is ſaid, "Venatores et Glaciei mariæ foſſores ad Lenam habitantes—dum primis laborum ſuorum diebus facile laſſantur et a perpetuo præruptorum montium adſcenſu genuum graves dolores patiuntur, laſſitudini et dolori, decocto hujus foliorum, biduum triduumve continuato efficaciter mederi, nullum inter dormire et quaſi inebriari, brevi vero ad ſolidiores labores ſuſtinendos inde appiſſimos evadere." See *Gmelin. l. c.*

[b] *Praktiſche Bemerkungen über den Gebrauch der Sibiriſchen Schneeroſe in Gichtkrankheilen von D. A. B. Koeplin.* Berlin u. Stettin. 1779.

As a powerful and active medicine this ſhrub may probably be found an important addition to the Materia Medica. Dr. Home, who tried it unſucceſsfully in ſome caſes of acute rheumatiſm, ſays, "it appears to be one of the moſt powerful ſedatives which we have, as in moſt of the trials it made the pulſe remarkably ſlow, and in one patient reduced it 38 beats."[e] And in other caſes in which the Rhododendron has been uſed at Edinburgh, it has been productive of good effects, and accordingly it is now introduced into the Edinburgh Pharmacopœia.[f] The manner of uſing this plant by the Siberians, was by putting two drams of the dried leaves in an earthen pot, with about ten ounces of boiling water, keeping it near a boiling heat for a night, and this they took in the morning, and by repeating it three or four times generally effected a cure. It is ſaid to occaſion heat, thirſt, a degree of delirium, and a peculiar ſenſation of the parts affected.

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[c] *Procopius a Demidof* of Moſcow, employed a tincture of the leaves alſo in hæmorrhoidal complaints. *Neue nordiſche Beyträge*, *vol.* 3. *p.* 369. In Siberia it was given in a caſe of cancer of the breaſt, by *Butzaw*, with great ſucceſs. It is in common uſe in Germany. See Pallas Flor. Roſſica. c. and J. H. Zahn. *Diſſ. Med. inaug. de Rhodod. Chryſantho.* 1783.

[d] Theſe effects were produced on a goat, which, by eating ten leaves of the plant, was ſeized in a few minutes with tremblings, ſopor, &c. See *Steller* in *Gmelin*, *l. c.*

It has alſo been remarked by Steller, that the effects of this plant have been found to vary according to its ſolum natale: thus, that produced in a certain place, has been found uniformly narcotic, that of another cathartic, and a ſenſe of ſuffocation was the only ſymptom occaſioned by a third. Vide *Gmelin. l. c.*

[e] *Clin. Exper. p.* 140.

[f] See *Duncan's Edinb. Diſpenſ. p.* 264.

COCHLEARIA ARMORACIA. HORSE-RADISH.

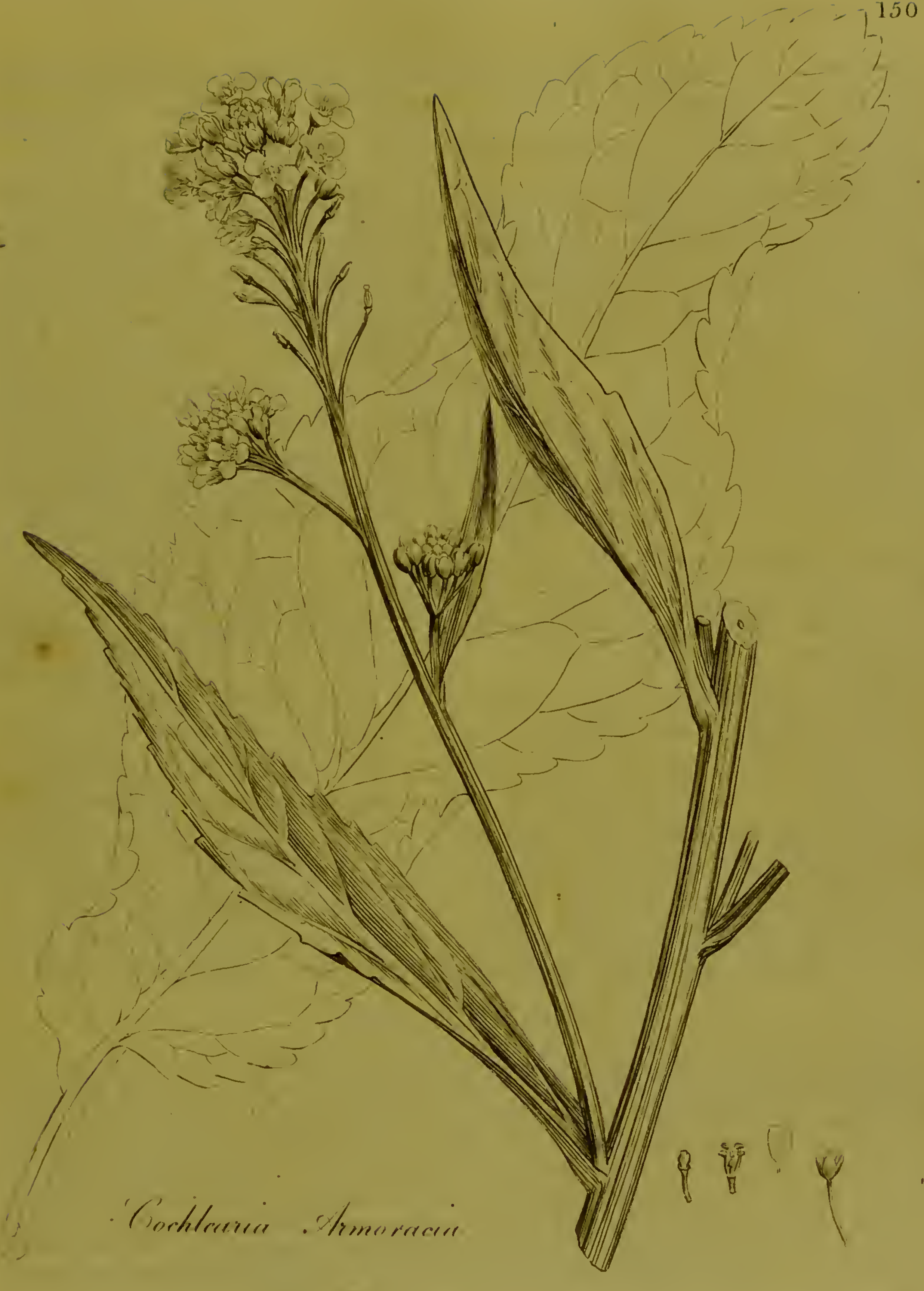
SYNONYMA. Raphanus ruſticanus. *Pharm. Lond. & Edinb. Bauh. Pin. p.* 96. *Gerard. Emac. p.* 241. *Park. Theat. p.* 860. *Raii Hiſt. p.* 818. *Synop. p.* 301. *Hiſt. Ox. iii. t.* 7. *f.* 2. Naſturtium foliis radicalibus lanceolatis crenatis, caulinis inciſis. *Hal. Stirp. Helv. n.* 504. Cochlearia Armoracia. *Hudſ. Ang. p.* 284. *Withering Bot. Arr. p.* 681. *Relhan Flor. Cant. p.* 249.

Claſs Tetradynamia. *Ord.* Siliculoſa. *Lin. Gen. Plant.* 803.

Eſſ. Gen. Ch. *Silicula* emarginata, turgida, ſcabra: valvulis gibbis, obtuſis.

Sp. Ch. C. foliis radicalibus lanceolatis crenatis; caulinis inciſis.

THE root is perennial, long, tapering, white: the ſtalk is round, erect, branched, ſmooth, and riſes two or three feet in height: the radical leaves are very large, lance-ſhaped, ſcolloped at the edges, and ſtand on ſtrong footſtalks; thoſe of the ſtalk are much ſmaller, narrow, and often divided at the edges: the flowers are white, numerous, and terminate the branches in thick cluſters: the calyx is compoſed of four leaves, which are egg-ſhaped, concave, opening, and deciduous: the corolla conſiſts of four inverſely egg-ſhaped petals, which expand in oppoſite directions, and form a croſs; they are twice the ſize of the calyx, and are inſerted by narrow claws: the filaments are ſix, tapering, the two oppoſite ones ſhorter than the other four, and all furniſhed with blunt compreſſed antheræ: the germen is heart-ſhaped, ſupporting a ſimple ſtyle, which is ſhort, permanent, and furniſhed with an obtuſe ſtigma: the capſule is heart-ſhaped, turgid, ſlightly notched at the end, and furniſhed with the ſtyle; it is divided into two cells, each containing about four ſeeds. It is found growing wild in many parts of England, particularly about



Cochlearia Armoracia

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about rubbiſh and the ſides of ditches; but it is commonly cultivated in gardens, and flowers in May.

The root of this plant, which has long been received into the Materia Medica, is alſo well known at our tables; "it affects the organs both of taſte and ſmell with a quick penetrating pungency; nevertheleſs it contains in certain veſſels a ſweet juice, which ſometimes exudes in little drops upon the ſurface. Its pungent matter is of a very volatile kind, being totally diſſipated in drying, and carried off in evaporation or diſtillation by water and rectified ſpirit: as the pungency exhales, the ſweet matter of the root becomes more ſenſible, though this alſo is in a great meaſure diſſipated or deſtroyed. It impregnates both water and ſpirit, by infuſion or by diſtillation, very richly with its active matter: in diſtillation with water it yields a ſmall quantity of eſſential oil, exceedingly penetrating and pungent."[a]

Dr. Cullen having, in our opinion, mentioned every thing neceſſary to be known reſpecting the medical virtues of Horſe-radiſh, we ſhall here tranſcribe all that the ingenious Profeſſor has written on this ſubject:

" The root of this only is employed, and it affords one of the
" moſt acrid ſubſtances of this order, (ſiliquoſa) and therefore proves
" a powerful ſtimulant, whether externally or internally employed.
" Externally it readily inflames the ſkin, and proves a rubifacient
" that may be employed with advantage in palſy and rheumatiſm;
" and if its application be long continued it produces bliſters."—
" Taken internally, I have ſaid in what manner its ſtimulant power
" in the fauces may be managed for the cure of hoarſeneſs.[b] Received
" into the ſtomach, it ſtimulates this, and promotes digeſtion, and

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[a] *Lewis, M. M. p.* 534.

[b] The Doctor here refers to the article Eryſimum, the juice of which mixed with an equal part of honey or ſugar, is ſtrongly recommended for the cure of hoarſeneſs which proceeds from an interrupted ſecretion of mucus, and which ſtimulants of the acrid kind are found moſt efficacious in reſtoring. When the Eryſimum was not at hand, the Dr. ſubſtituted a ſyrup of Horſe-radiſh. He ſays, "I have found that one dram of the root, freſh, ſcraped down, was enough for four ounces of water, to be infuſed in a cloſe veſſel for two hours, and made into a ſyrup, with double its weight of ſugar. A tea-ſpoonful or two of this ſyrup, ſwallowed leiſurely, or at leaſt repeated two or three times, we have found often very ſuddenly effectual in relieving hoarſeneſs." *Mat. Med. v. ii. p.* 167.

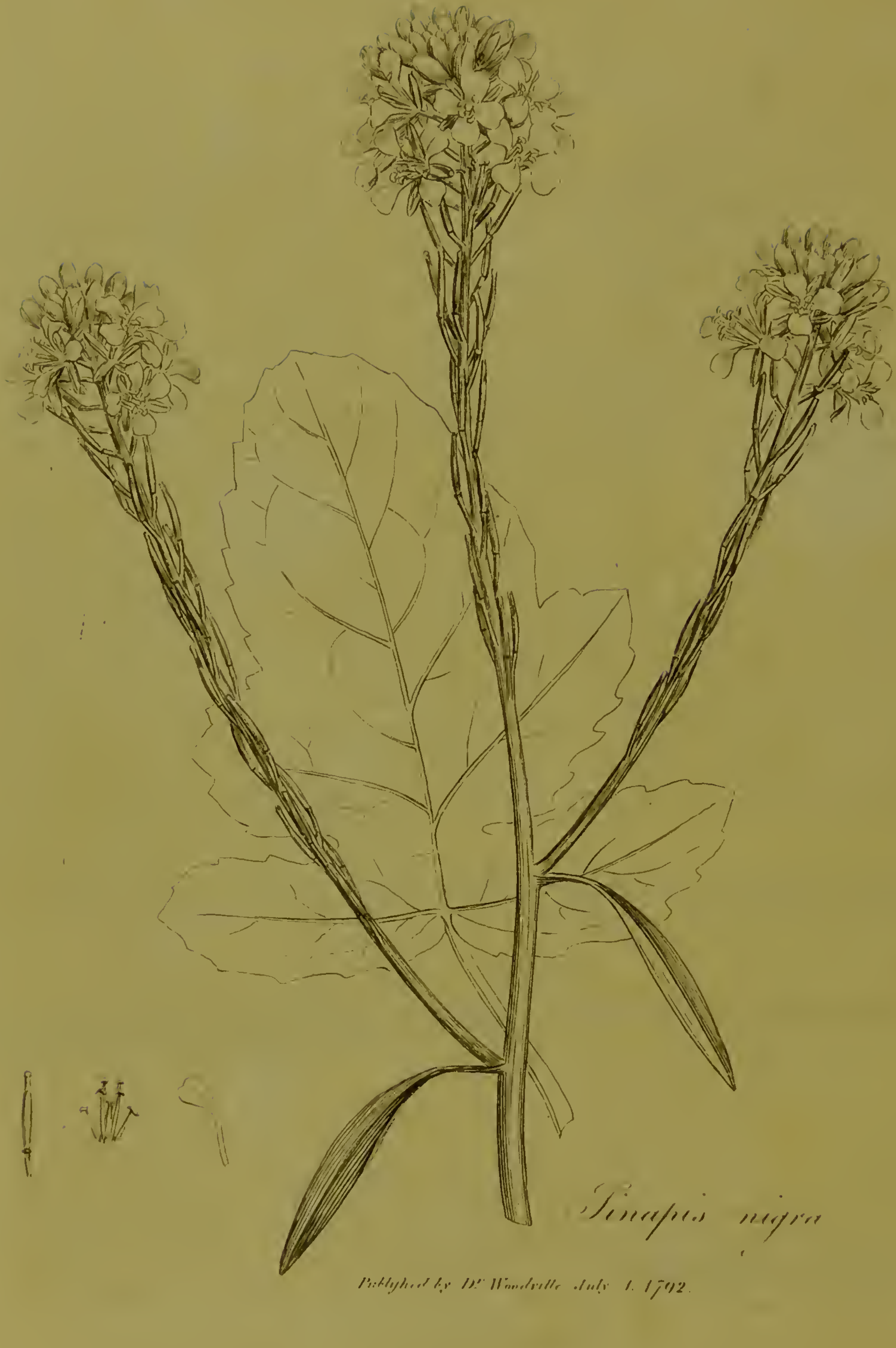
“ therefore is properly employed as a condiment with our animal
“ food. If it be infuſed in water, and a portion of this infuſion be
“ taken with a large draught of warm water, it readily proves
“ emetic, and may either be employed by itſelf to excite vomiting,
“ or to aſſiſt the operation of other emetics. Infuſed in water, and
“ taken into the ſtomach, it proves ſtimulant to the nervous ſyſtem,
“ and is thereby uſeful in palſy; and if employed in large quantity
“ it proves heating to the whole body: and hereby it proves often
“ uſeful in chronic rheumatiſm, whether ariſing from ſcurvy, or
“ other cauſes. Bergius [c] has given us a particular method of
“ exhibiting this root, which is by cutting it down, without bruiſing,
“ into very ſmall pieces; and theſe, if ſwallowed without chewing,
“ may be taken down in large quantity, to that of a table ſpoonful:
“ and the author alleges, that in this way, taken every morning for
“ a month together, this root has been extremely uſeful in arthritic
“ caſes; which however I ſuppoſe to have been of the rheumatic
“ kind. It would ſeem that in this manner employed, analagous to
“ the uſe of unbruiſed muſtard-ſeed, it gives out in the ſtomach its
“ ſubtle volatile parts, that ſtimulate conſiderably without inflaming.
“ The matter of Horſe-radiſh, like the ſame matter of the other
“ ſiliquoſe plants, carried into the blood veſſels, paſſes readily into
“ the kidneys, and proves a powerful diuretic, and is therefore uſeful
“ in dropſy; and we need not ſay, that in this manner, by promoting
“ both urine and perſpiration, it has been long known as one of the
“ moſt powerful antiſcorbutics.” [d]

[c] See *Berg. Mat. Med. p.* 559. where he adds, “ Agit ſecure, ventriculum vix calefacit, niſi ſub fine curæ. Multos ſcorbuticos hoc etiam regimine perquam levatos vidi.”

[d] *Mat. Med. vol. ii. p.* 169.

We are told by Dr. Withering, that an infuſion of Horſe-radiſh in milk makes one of the ſafeſt and beſt coſmetics. *l. c.*

SINAPIS NIGRA.



Sinapis nigra

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SINAPIS NIGRA. COMMON BLACK MUSTARD.

SYNONYMA. Sinapi. *Pharm. Lond. & Edinb.* Sinapi rapi folio. *Baub. Pin. p.* 99. Sinapi ſativum alterum. *Gerard Emac. p.* 244. Sinapi ſativum rapi folio. *Park. Theat. p.* 831. Sinapi ſativum ſecundum. *Raii Hiſt. p.* 803. *Synop. p.* 295. Sinapi ſiliquis tetragonis glabris. *Hall. Stirp. Helv. n.* 465. Sinapis nigra. *Hudſ. Flor. Ang. p.* 297. *Lightf. Flor. Scot. p.* 361. *Withering Bot. Arrang. p.* 713.

Claſs Tetradynamia. *Ord.* Siliquoſa. *Lin. Gen. Plant.* 821.

Eſſ. Gen. Ch. *Cal.* patens. *Cor.* ungues recti. *Glandula* inter ſtamina breviora et piſtillum, interque longiora et calycem.

Sp. Ch. S. ſiliquis glabris racemo appreſſis.

THE root is annual: the ſtem erect, ſmooth towards the top, channelled at the bottom, about three feet in height, divided and ſubdivided in numerous diſtant ſpreading branches: the leaves are variouſly ſhaped; thoſe near the root are large, irregularly heart-ſhaped, and pinnatifid or lobed at the baſe; thoſe on the upper branches are narrow, and more entire: the flowers are yellow, and terminate the branches in cloſe ſpikes: the calyx conſiſts of four expanding ſtrap-ſhaped deciduous leaves: the corolla is compoſed of four petals, which at their extremities are roundiſh, flat, ſpreading, and ſtand in oppoſite directions upon upright narrow claws: the filaments are ſix, four long and two ſhort; they are all erect, tapering, and furniſhed with ſimple antheræ: the germen is cylindrical, terminated by a ſtyle, which is crowned with a knobbed ſtigma: a ſmall gland is placed between each of the ſhort filaments and the germen, and between each pair of the long filaments and the calyx, the ſeed veſſels or pods ſtand nearly parallel with the branches, and are long, ſmooth, protuberant at the baſe, two-celled, two-valved, and contain many globular ſhining dark ſeeds. It is common in corn fields, and banks of ditches; but it is cultivated for uſe, and flowers in June.

The ſeeds of this ſpecies of Muſtard, which are directed by the London College, and thoſe of the S. alba, which are preferred by that of Edinburgh, manifeſt no remarkable difference to the taſte, nor in their general effects, and therefore anſwer equally well for the uſes of the table, and for the purpoſes of medicine. They have an acrid pungent taſte, and when bruiſed this pungency ſhews its volatility by powerfully affecting the organs of ſmell; they readily impart theſe qualities to aqueous liquors, and by diſtillation with water yield an eſſential oil of great acrimony. To rectified ſpirit theſe ſeeds give out very little either of their ſmell or taſte. Subjected to the preſs, they yield a conſiderable quantity of mild inſipid oil, which is as free from acrimony as that of almonds.

By writers on the Materia Medica, Muſtard is conſidered to promote appetite, aſſiſt digeſtion, attenuate viſcid juices, and by ſtimulating the fibres, to prove a general remedy in paralytic and rheumatic affections. Joined to its ſtimulant qualities, it frequently, if taken in conſiderable quantity, opens the body,[a] and increaſes the urinary diſcharge, and hence has been found uſeful in dropſical complaints.[b] It belongs to the ſame natural order as the laſt mentioned plant, to which it is nearly allied in its medicinal character, and, like all the other Siliquoſæ, has been recommended as an antiſcorbutic;[c] though we are told by Haller, that the uſe of Muſtard diſpoſes the humours to putreſcency;[d] an opinion which he was probably led to entertain from a ſuppoſition that it contained volatile alkali: for it is well known that ſome of theſe pungent plants, when in a ſtate of putrefaction, give out this alkali by diſtillation, and hence have been termed alkaleſcent plants; but the fermentation of theſe vegetable ſubſtances may be ſo directed as to be of the aceſcent kind,[e] and the alkali obtained from them ſeems not to have exiſted in the vegetable in a ſeparate ſtate.† The great pungency of theſe plants is not therefore to be aſcribed to the volatile alkali, but to the eſſential oil which they contain. Bergius informs us, that he found Muſtard of great efficacy in curing vernal intermittents; for this purpoſe he directed a ſpoonful of the whole ſeeds to be taken three or four times a day, during the apyrexia; and when the diſeaſe was obſtinate, he added flower of Muſtard to the bark.[f] Externally theſe ſeeds are frequently uſed as a ſtimulant or ſinapiſm.[g] Muſtard-ſeed may be moſt conveniently given entire or unbruiſed, and to the quantity of a ſpoonful or half an ounce for a doſe.

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[a] As much of the unbruiſed ſeeds as an ordinary table-ſpoon will contain does not prove heating to the ſtomach, but ſtimulates the inteſtinal canal, and commonly proves laxative. Cullen, *M. M. vol. ii. p.* 171.

[b] See Mead and others.

[c] "Semen Sinapeos in mortario tritum & cum vino albo mixtum, multas centurias Scorbuticorum & languentium hominum in obſidione Rupellenſi ſanitati reſtituit. Plerique enim obſeſſorum & urbe incluſorum fame & inedia preſſi, multa ſordida & quæ natura abhorret eſitare coacti, reſpirandi difficultatem, gingivarum putredinem, dentium nigritiem & vacillationem, aliaque Scorbuti ſymptomata contraxerant, unde multi moriebantur, donec tandem Sinapi in foſſis circa urbem copioſè inventum, & quo dictum eſt modo adhibitum omnes liberavit." Vide *Raii Hiſt. p.* 803.

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[d] "Ut denique dicam quæ ſentio, & ipſe vidi, frequentem Sinapi uſum credo humores ad naturam putredinoſam diſponere, morbos que acutos redere pernicioſiores, ſi in muſtardæ amantes homines inciderint. Neque ventriculo muſtardam prodeſſe putem, quæ vix ipſa coquatur, & pluſculis horis ructus putridos cieat." *Hiſt. Stirp. Helv. n.* 465.

[e] *Cullen, l. c.*

[f] *Mat. Med. vol. ii. p.* 581.

[g] "The freſh powder of Muſtard ſhews little pungency and much bitterneſs; but when it has been moiſtened with vinegar, and kept for a day, the eſſential oil is evolved, and it becomes conſiderably more acrid, as is well known to thoſe who prepare Muſtard for the table; a circumſtance which ſhould be attended to when deſigned for external uſe." *Cullen, l. c.*

† We have good reaſon to ſuppoſe, that Boerhaave was miſtaken in aſſerting, "Semen optimum Sinapis, ſolum contritum affuſo acerrimo aceto effervеſcere memini," Chem. vol. ii. p. 142. as it has ſince been denied by the moſt reſpectable authorities.

PISTACIA LENTISCUS.

PISTACIA LENTISCUS. MASTICH TREE.

Ex qua fluit *MASTICHE*, *Pharm. Lond. & Edinb.*

SYNONYMA. Lentiſcus vulgaris. *Bauh. Pin. p.* 399. *Tournf. Inſt. p.* 580. Lentiſcus. *Cluſ. Hiſt. i. p.* 14. *Dod. Pempt. p.* 871. *Du Hamel Arbres. t. i. tab.* 136. *Conſ. Tourneſ. Voyage du Levant. p.* 144.

β Piſtacia *maſſilienſis*, foliis abrupte pinnatis: foliolis lineari-lanceolatis. *Mill. Dict.*

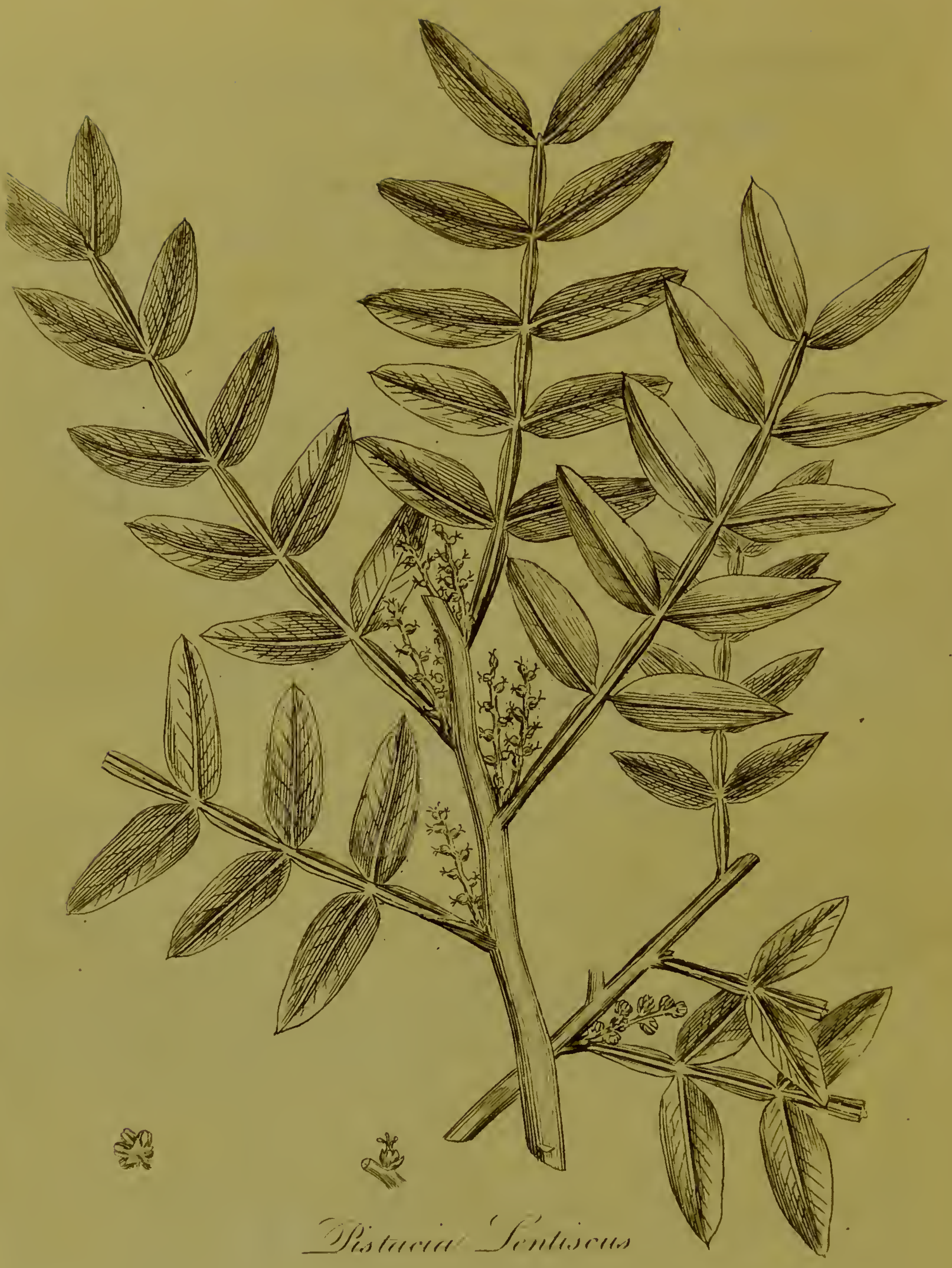
NARROW-LEAVED MASTICH-TREE. *Aiton. Hort. Kew.*

Claſs Dioecia. *Ord.* Pentandria. *Lin. Gen. Plant.* 1108.

Eſſ. Gen. Ch. *MASC.* Amenti. *Cal.* 5-fidus. *Cor.* 0.
FEM. diſtincta. *Cal.* 3-fidus. *Cor.* 0. *Styli* 2. *Drupa* monoſperma.

Sp. Ch. P. foliis abrupte pinnatis: foliolis lanceolatis.

THIS tree, which ſeldom exceeds a foot in diameter, riſes ten or twelve feet in height; it is covered with a ſmooth brown bark, and towards the top ſends off numerous branches: the leaves are regularly pinnated, and conſiſt of ſeveral pairs of narrow ovate oppoſite pinnæ, cloſely attached to the common footſtalk, which is winged or ſupplied with a narrow foliaceous expanſion: the male flowers are placed in an amentum or open catkin: the calyx (proper) is divided into five minute ovate ſegments: the filaments are five, ſometimes four, very ſhort: the antheræ are large, brown, erect, and of a quadrangular form: the female flowers, like thoſe of the male, have no corolla, and are placed upon the common peduncle in alternate order: the calyx conſiſts of three ſmall ſquamous ſegments: the germen is egg-ſhaped, larger



Pistacia Lentiscus

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larger than the calyx, and ſupports two or three ſtyles, terminated by reflexed clubbed ſtigmata: the fruit is of the drupous kind, containing an egg-ſhaped ſmooth nut. The flowers appear in May, and the fruit ripens in Auguſt.

This tree, which is a native of the South of Europe and the Levant, appears by Evelyn's Kalendarium Hortenſe to have been cultivated in Britain in 1664;[a] but in this country it is of ſlow vegetation, and ſeldom healthy enough to give us a competent idea of the plant in its natural ſituation, ſo that we have been enabled to publiſh a more correct figure of the Lentiſcus, from a dried ſpecimen of it in the Linnean Herbarium, than could have been done from the living plant as found in any of the gardens in the vicinity of London.[b]

In the iſland of Chio, the officinal Maſtich is obtained moſt abundantly, and, according to Tournefort,[c] by making tranſverſe inciſions in the bark of the tree; from whence the Maſtich exudes in drops, which are ſuffered to run down to the ground, when, after ſufficient time is allowed for their concretion, they are collected for uſe. The time choſen for making theſe inciſions is the firſt of Auguſt, when the weather is very dry; on the following day the Maſtich begins to appear in drops, which continue to exude till the latter end of September.[d]

Maſtich is a reſinous ſubſtance, brought to us in ſmall yellowiſh tranſparent brittle grains or tears: " it has a light agreeable ſmell, eſpecially when rubbed or heated: on being chewed, it firſt crumbles, ſoon after ſticks together, and becomes ſoft and white, like wax, without impreſſing any conſiderable taſte. It totally diſſolves, except the earthly impurities, which are commonly in no great quantity, in rectified ſpirit of wine, and then diſcovers a degree of warmth and

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[a] See *Aiton's Hort. Kew.*

[b] The only tree of this ſpecies which we have obſerved to flower in England, is a male plant in the Apothecaries garden at Chelſea, where many rare and valuable plants have been long ſucceſsfully cultivated.

[c] *Voyage du Levant. t. i. p.* 44. See alſo Du Hamel, *l. c.* De la Motraye, *Voyage &c. t. i. p.* 190. *Thevenot's Levant, p.* 180. Haſſelquiſt *Reſa. p.* 532.

[d] Vers la fin de Septembre les mêmes inciſions fourniſſent encore du maſtic, mais en moindre quantité. *Tourn. l. c.*

bitterneſs,

bitterneſs, and a ſtronger ſmell than that of the reſin in ſubſtance. Boiled in water, it impregnates the liquor with its ſmell, but gives out little or nothing of its ſubſtance; diſtilled with water, it yields a ſmall proportion of a limpid eſſential oil, in ſmell very fragrant, and in taſte moderately pungent. Rectified ſpirit brings over alſo in diſtillation, the more volatile odorous matter of the Maſtich."[c]

It is a common practice with the Turkiſh women to chew this reſin, eſpecially in the morning, not only to render their breath more agreeable, but to whiten the teeth, and ſtrengthen the gums;[f] they alſo mix it with their fragrant waters, and burn it with other odoriferous ſubſtances in the way of fumigation.

As a medicine, Maſtich is conſidered to be a mild corroborant and aſtringent; and as poſſeſſing a balſamic power, it has been recommended in hæmoptyſis, proceeding from ulceration, fluor albus, debility of the ſtomach, and in diarrhœas and internal ulcers.[g] Chewing this drug has likewiſe been ſaid to have been of uſe in pains of the teeth and gums, and in ſome catarrhal complaints; it is now however ſeldom uſed either externally or internally.

The LENTISCI *lignum*, or wood of this tree, is received into the Materia Medica of ſome of the foreign Pharmacopœias, and is highly extolled in dyſpeptic, gouty, hæmorrhagic, and dyſenteric affections.[h]

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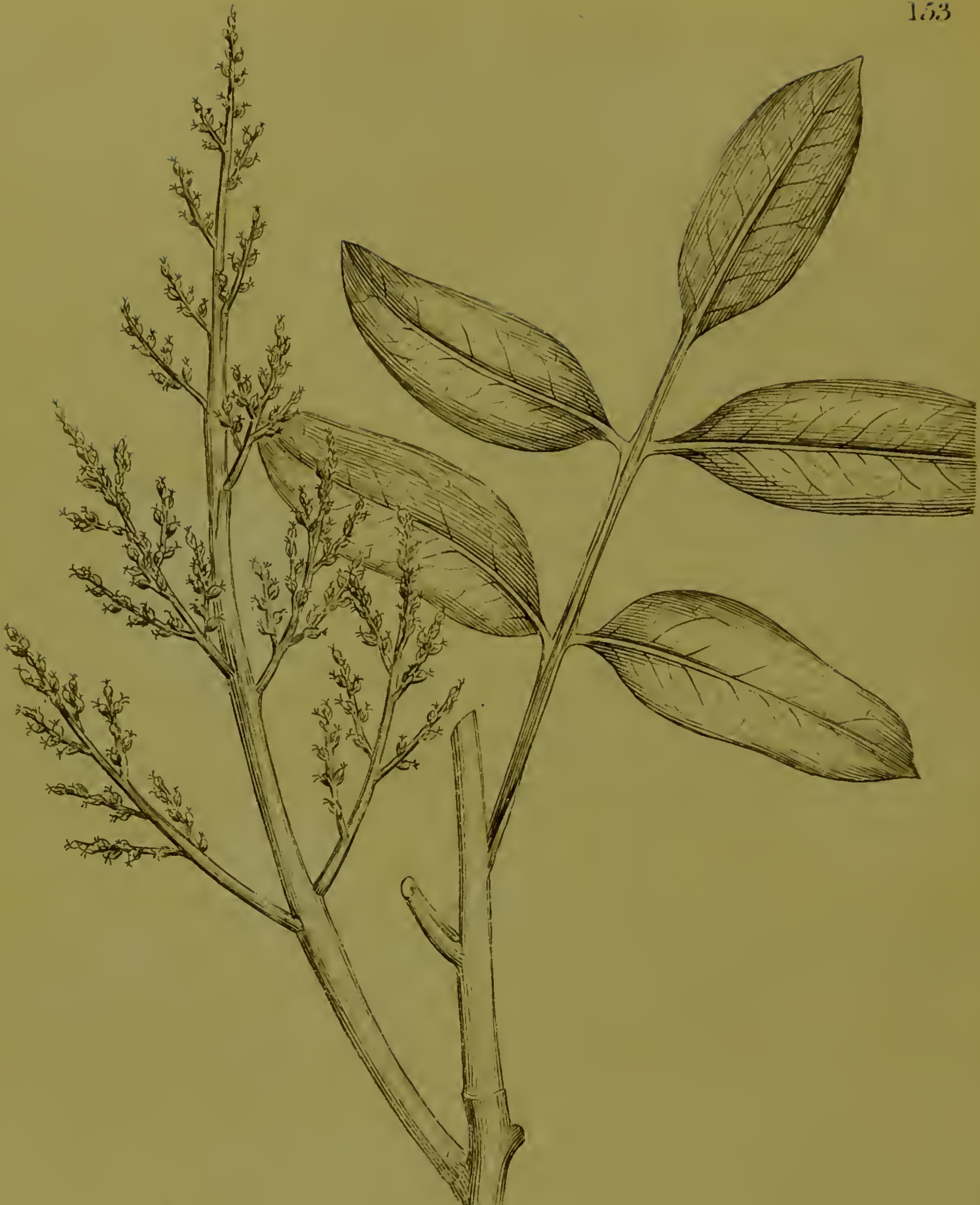
[c] *Lewis, M. M. p.* 413.

[f] *Lib. cit.*

[g] Degner *(de dyſenteria. p.* 201.*)* gave it ſucceſsfully in theſe complaints, in doſes of ten grains to a ſcruple, both in ſubſtance and in the way of emulſion.

[h] See *Ephem. Nat. Cur. Dec.* 3. *A.* 9. 10. *Obſ.* 135. where it is dignified with the title of vegetable aurum potabile.

PISTACIA TEREBINTHUS.



Pistacia Terebinthus

Publish'd by Dr. Woodville July 1 1792

PISTACIA TEREBINTHUS. CHIAN or CYPRUS TURPENTINE TREE.

Ex qua fluit Terebinthina chia, *Pharm. Lond.*

SYNONYMA. Terebinthus vulgaris. *Bauh. Pin. p.* 400. *Tournef. Inſt. p.* 579. Terebinthus. *Cluſ. Hiſt. p.* 15. *Dod. Pempt. p.* 871. *Gerard. Emac. p.* 1433. *Raii Hiſt. p.* 1577. Terebinthus anguſtiore folio vulgatior. *Park. Theat. p.* 1526. Ic. *Du Hamel Arbres. t.* 2. *tab.* 87.

Claſs Dioecia. *Ord.* Pentandria. *Lin. Gen. Plant.* 1108.

Eſſ. Gen. Ch. *Masc.* Amenti. *Cal.* 5-fidus. *Cor.* 0.

Fem. Diſtincta. *Cal.* 3-fidus. *Cor.* 0. *Styli* 2. *Drupa* monoſperma.

Sp. Ch. P. foliis impari-pinnatis: foliolis ovato-lanceolatis.

THIS is a much larger tree than the preceding ſpecies: it ſends off many long ſpreading branches,* and is covered with ſmooth bark: the leaves are pinnated, conſiſting of ovate lance-ſhaped, veined, entire, oppoſite pinnæ, with an odd one at the end: the flowers are male and female on different trees, and in their eſſential parts correſpond with the deſcription given of thoſe of the P. Lentiſcus. It is a native of Barbary and the South of Europe, and has been cultivated in Britain more than ſixty years.* It is more hardy than the P. Lentiſcus, and if planted againſt a wall, it bears our winters very well.

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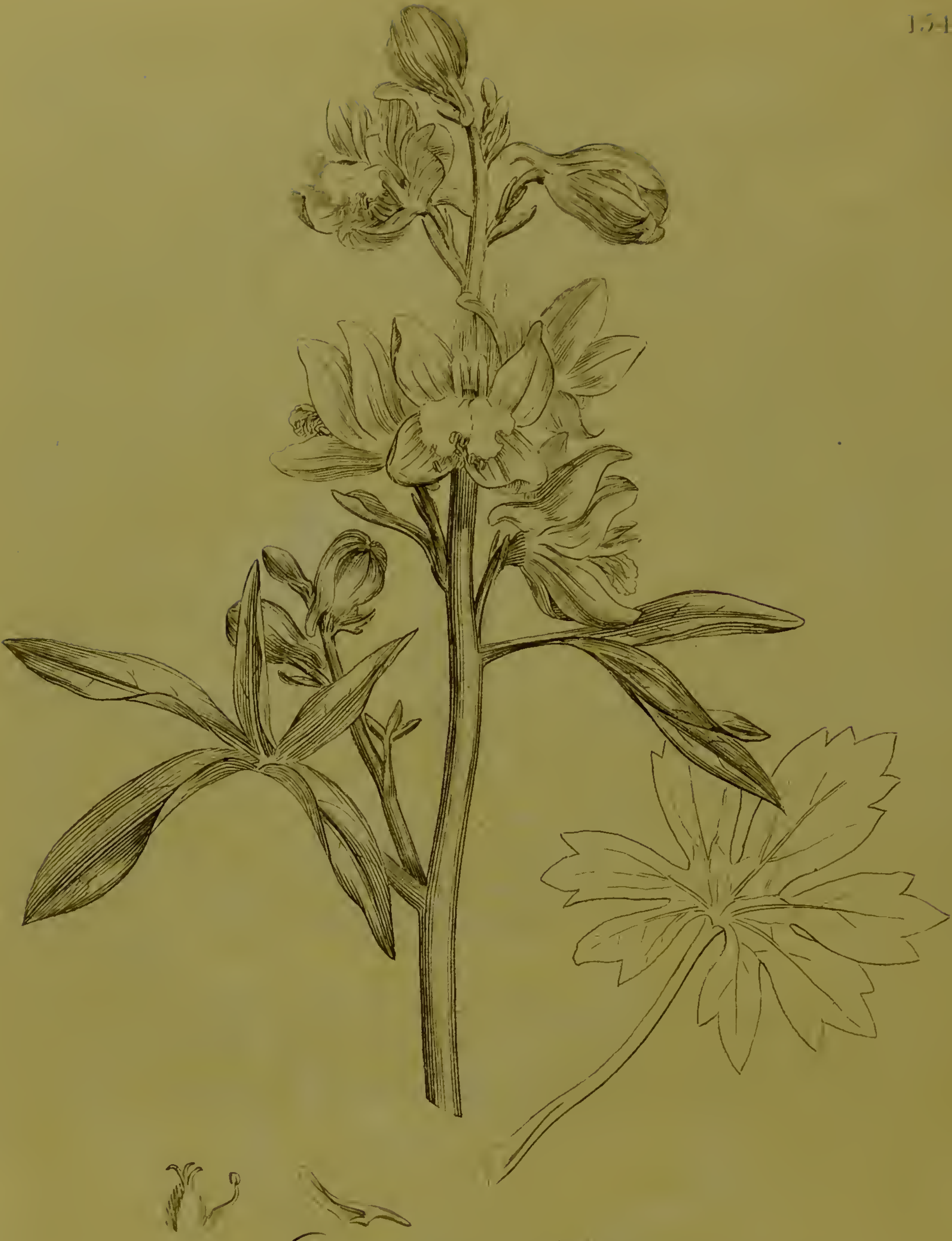
* Le Brun tells us that it was "le Terebinthe qui ſe courba pour donner plus d'ombre à la S. Vierge, lors qu'allant de Bethlehem à Jeruſalem pour porter ſon Fils au Temple, elle ſe voulut repoſer ſous cet arbre." See *Voyage au Levant. p.* 284.

Cyprus, or Chian Turpentine, which this tree furniſhes, is procured by wounding the bark of the trunk of the tree, in ſeveral places, in the month of July, leaving a ſpace of about three inches between each wound; from theſe the Turpentine iſſues, and is received upon ſtones, which are placed at the bottom of the tree for this purpoſe, and upon which it becomes ſo much condenſed by the coldneſs of the night, as to admit of being ſcraped off with a knife in the morning, which is always to be done before the ſun riſes: after this, in order to free it of all extraneous admixture, it is again liquified by the ſun's heat, and paſſed through a ſtrainer, when it is fit for uſe.[a] The quantity of this Turpentine produced from each tree, is very inconſiderable, in ſo much that it has been obſerved that four large trees, ſixty years old, whoſe trunks meaſured five feet in circumference, only yielded two pounds nine ounces and ſix drams; but in the eaſtern parts of the iſlands, the names of which this Turpentine bears, the trees afford ſomewhat more, though ſtill ſo little as to render it very coſtly, and on this account it is commonly adulterated, eſpecially with other Turpentines. The beſt Chio Turpentine is generally about the conſiſtence of thick honey, very tenaceous, clear, and almoſt tranſparent, of a white colour, inclining to yellow, and a fragrant ſmell, moderately warm to the taſte, but free from acrimony and bitterneſs. The medicinal and other qualities of the Turpentines will be conſidered together under the ſpecies of Pinus. See Index.

* See a Catalogue of Trees, Shrubs, &c. which are propagated for ſale in the gardens near London, publiſhed in 1730, p. 78. Terebinthus i. *Aiton's Hort. Kew.*

[a] See Du Hamel, *l. c. p.* 308. and Tournefort, *Voyage du Levant. t. i. p.* 145.

DELPHINIUM STAPHISAGRIA.



Delphinium Staphisagria

Publiſhed by Dr. Woodville July 1. 1792.

DELPHINIUM STAPHISAGRIA. PALMATED LARKSPUR, Or, STAVESACRE.

SYNONYMA. Staphiſagria. *Pharm. Lond. & Edinb. Bauh. Pin. p.* 324. *Dod. Pempt. p.* 366. *Gerard. Emac. p.* 495. *Raii Hiſt. p.* 705. *Park. Theat. p.* 222. *J. Bauh. Hiſt. iii. p.* 641. Delphinium Platani folio, Staphis agria dictum. *Tourn. Inſt. p.* 428. Aconitum urens Ricini fere foliis, flore cæruleo magno, Staphis agria dictum. *Pluk. Almag. p.* 357.

Claſs Polyandria. *Ord.* Trigynia. *Lin. Gen. Plant.* 681.

Eſſ. Gen. Ch. Cal. 0. *Petala* 5. *Nectarium* bifidum, poſtice cornutum. *Siliquæ* 3. s. 1.

Sp. Ch. D. nectariis tetraphyllis petalo brevioribus, foliis palmatis: lobis obtuſis.

THE root is biennial: the ſtem is downy, ſmooth, erect, ſimple, purpliſh, and riſes from one to two feet in height: the leaves are palmated, dividing into five or ſeven lobes, which are ovate or lance-ſhaped, veined, downy, and of a pale green colour: the leaf ſtalks are long, ſtrong, downy, of the colour of the ſtem, from which they ariſe alternately, and are gradually ſhorter towards the top of the plant, ſo as to give the whole a regular conical ſhape: the flowers appear in June; they are large, bluiſh or purpliſh, ſtand upon long footſtalks, and terminate the ſtalk in an open ſpike: there is no calyx: the corolla is compoſed of five egg-ſhaped ſpreading petals, of which the uppermoſt is extended backwards, ſo as to form a hollow ſpur or horn-like projection:[a] the nectarium is commonly divided into four leaves, which are leſs than thoſe of the corolla; the two ſuperior are narrow, ſmall, erect, and at the baſe drawn out into ſpurs like that of the petal, in which they are both incloſed; the other two are roundiſh, and plaited at the edges : the filaments are about twenty, ſhort, tapering, and crowned with large yellow antheræ : the germens are three, cloſely compreſſing each other, tapering, very downy, and ſupplied with filiform ſhort ſtyles, terminated by ſimple ſtigmata : the three capſules are ſtraight, oblong, tapering, and contain many rough, brown, triangular ſeeds.

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[a] In ſome flowers we obſerved two ſpurs, in others but one, and the nectarium varied accordingly.

Staveſacre, which is a native of the ſouthern parts of Europe, was cultivated here in the time of Gerard :[b] it is a handſome plant, though leſs beautiful than many of the other ſpecies of Larkſpur.

The ſeeds, which are the only part of the plant directed for medicinal uſe, are uſually imported here from Italy ; they are large, rough, of an irregular triangular figure, and of a blackiſh colour on the outſide, but yellowiſh within ; their ſmell is diſagreeable, and ſomewhat fetid ; to the taſte they are very bitter, acrid, and nauſeous. Their virtues are extracted partially by water, and completely by rectified ſpirit.

Theſe ſeeds ſeem to have been known to the ancients,[c] by whom they were employed as a maſticatory, for on being chewed they excite a copious flow of ſaliva, and on this account were recommended in tooth-aches, and other painful affections of the face and gums. The ancients alſo preſcribed them with a view to their emetic and cathartic effects in doſes of ten or fifteen grains :[d] but the deleterious narcotic qualities of Staveſacre were diſcovered to be ſo powerful as to forbid its internal uſe. Schultz, only by keeping it ſometime in his mouth, to relieve a tooth-ach, was for a time deprived of his ſenſes ;[e] and Hillefeld has related, that a dog, by taking five ſcruples of theſe ſeeds, became convulſed, and ſoon died.[f] Staveſacre is now therefore confined to external uſe in ſome kinds of cutaneous eruption, but more eſpecially for deſtroying lice and other inſects ; and by its efficacy in this way, this plant, in moſt of the European languages, is diſtinguiſhed by the name Louſe-wort.

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[b] In 1596. Vide *Aiton's Hort. Kew.*

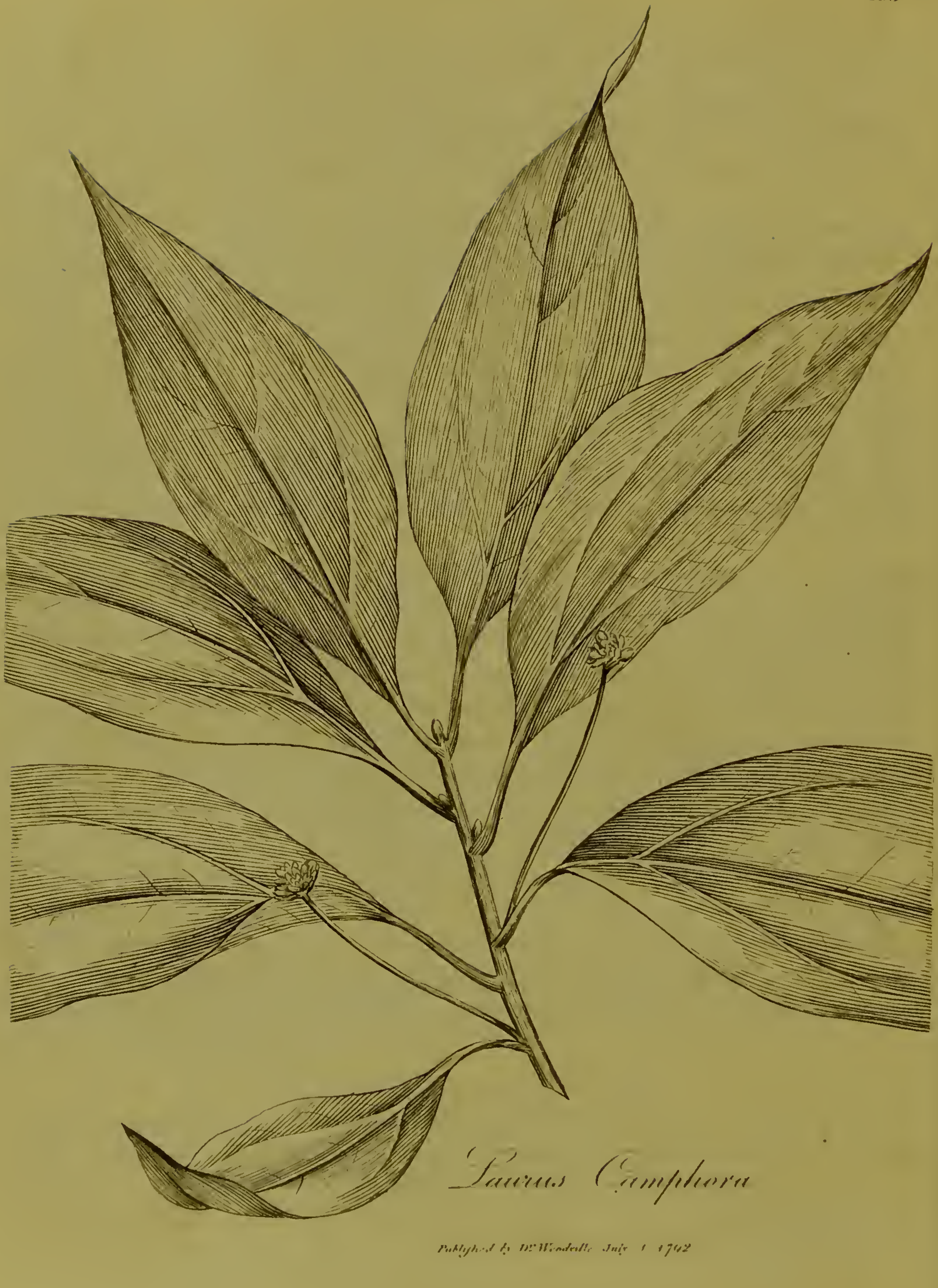
[c] Σταφις ἀγρια Dioſ. eadem videtur, licet Glaſti flores adſcribat. *Murr. App. Med. vol. iii. p.* 32.

[d] Vide *Dioſcor. & De la Boe Sylvius. De purg. &c.*

[e] See his *Mat. Med. p.* 435.

[f] *Diſſ. de Venen. p.* 20.

LAURUS CAMPHORA.



Laurus Camphora

Publiſhed by Dr. Woodville July 1 1792

LAURUS CAMPHORA. CAMPHOR-TREE.

Arbor ex qua obtinetur CAMPHORA, *Pharm. Lond. & Edinb.*

SYNONYMA. Camphora officinarum. *Bauh. Pin. p.* 500. *Park. Theat. p.* 1575. Laurus camphorifera Japon. vulgo Kus noki. *Kæmpfer Amœn. exot. p.* 770. Arbor camphorifera Japonica. *Breyn. exot. plant. cent. p.* 11. *Prod. p.* 7. et *icon. rarior. p.* 16. *Raii Hiſt. p.* 1679. Arbor camphorifera Japonica, foliis laurinis, fructu parvo globoſo, calyce breviſſimo. *Commel. Hort. Amſtel. tom. i. p.* 189. *tab.* 95. Conf. *Thumb. Fl. Japon. p.* 178. *Trew. in Nov. act. nat. cur. tom. ii. App. p.* 358. *& Burm. Fl. Ind. p.* 92. *& Flor. Cap. Prodr. p.* 12.

Claſs Enneandria. *Ord.* Monogynia. *Lin. Gen. Plant.* 503.

Eſſ. Gen. Ch. *Cor.* calycina, 6-partita. *Nectarium* glandulis 3, biſetis, germen cingentibus. *Filamenta* interiora glandulifera. *Drupa* 1-ſperma.

Sp. Ch. L. foliis triplinerviis lanceolato-ovatis.

THIS tree grows to a conſiderable height, dividing into many branches, covered with ſmooth greeniſh bark: the leaves are ovate, lance-ſhaped, entire, ſmooth, nerved, on the upper ſide of a pale yellowiſh green colour, on the under glaucous, and ſtand upon long footſtalks: the flowers are ſmall, white, ſtanding upon ſhort pedicles, terminating the common peduncles, which are long, naked, erect, and proceed from the alæ of the leaves: there is no calyx: the corolla is compoſed of ſix ſmall ovate concave unequal petals: the

nectarium conſiſts of three tubercles, terminating in briſtly points, ſurrounding the germen: the filaments are nine, ſhorter than the corolla, and furniſhed with round antheræ: the inner filaments are ſupplied at the baſe with two round glands: the germen is roundiſh: the ſtyle is ſimple, about the length of the filaments, and terminated by an obtuſe ſtigma: the fruit reſembles that of the Cinnamon.—(See Plate 27.)

This tree is a native of Japan, growing abundantly in the woods of the weſtern part of the iſland. It was firſt cultivated in Britain by Miller,[a] and by being eaſily propagated it is now a common greenhouſe plant in this country, where, though it often ſeems ſufficiently luxuriant and healthy, it very rarely produces flowers: ſo that for the annexed figure we are obliged to Dr. Smith who ſupplied us with a ſpecimen from his Herbarium.

Although this is the tree from which Camphor is chiefly obtained, and from which all Europe is ſupplied with this drug,[b] many other vegetables however are well known to afford a ſimilar ſubſtance; of theſe, that moſt worthy of notice is a large tree, indigenous to the iſlands of Borneo and Sumatra, which, though a different genus, ſomewhat reſembles that of the Laurus,[c] and is very fully deſcribed by Houttuyn;[d] alſo by Grimm,[e] Miller,[f] Marſden,[g] and others; by whom we are told it grows ſometimes to the height of 100 feet, exceeds fifteen in circumference, and yields the Camphor in a native concrete ſtate, in both theſe iſlands; but that of the former is accounted the beſt, and obtained more abundantly than in Sumatra.

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[a] *Aiton. Hort. Kew.*

[b] *Murray, App. Med. vol. iv. p.* 446.

[c] We have ſeen the fruit of this tree, (in the poſſeſſion of Dr. Smith) which has not the leaſt affinity to that of any of the genus Laurus.

[d] See *Verhandelingen door de Maatſchappye d. Weetenſch. te Harlem, vol. xxi. p.* 266. *ſqq. tab.* 8. He calls it, Laurus foliis ovalibus acuminatis lineatis, floribus magnis tulipaceis.

[e] Arbor Camphoræ. *Eph. nat. cur. Dec.* 2. *An.* 1. *p.* 371. *fig.* 33.

[f] See an account of Sumatra by Charles Miller in *Phil. Tranſ. vol.* 68. *p.* 169.

[g] *Hiſt. of Sumatra. p.* 121.

The Camphor is found to lodge every where in the interſtices of the fibres of the wood, alſo in the pith, but moſt abundantly in the crevices and knots of this tree; which, in order to obtain the drug, muſt be cut down, its bark taken off, and the wood ſplit. The larger pieces which in the Malay language are called *Copalla* (head), are firſt picked out from the upper part of the tree; afterwards the ſmaller, named *Poeruet* (belly), and laſtly that which adheres to the wood, and is procured by raſping, denominated *Caki*, or feet.

This native Camphor, when freed from woody fibres, is conſumed in the Eaſt, and ſold, even to the Japaneſe, at a very high price: it does not ſuffer ſo much loſs or change, on expoſure to the open air, as that imported from Japan, and appears in every reſpect to be a much purer and more valuable medicine.[h] From this tree likewiſe exudes an oily or rather reſinous fluid, named oil of Camphor;[i] which is of great eſtimation for its external uſe in relieving pains, and reſolving inflammatory tumours.

Of [illegible] other vegetables which yield Camphor, we have already noticed the Laurus Cinnamon, to which might be added ſeveral others which contain ſome proportion of this ſubſtance.[k]

The Camphor brought to Europe is to be conſidered as the eſſential oil of the tree here repreſented, obtained at Japan by a kind of diſtillation, or ſublimation, and for this purpoſe the root is ſaid by Ten Rhyne[l] to be the only part employed; but according to Cleyer[m] the Camphor is procured not only from the root, but alſo from the young branches; and by Kæmpfer and Thunberg both the root and wood are mentioned as affording this valuable medicine.[n]

Abbé Groſier, and the author of *Flora Cochinchinenſis*, * inform us, that this tree, which is called *Tchang*, grows in China to an immenſe ſize; and the former ſtates the proceſs for obtaining the

[h] V. Rademacher in *Verhand. van het Bataviſch Genootſchap. d. Wetens. vol. 2. p.* 127.

[i] See authors cited above, and Ten Rhyne *Litt. ad Jac. Breynium in Prodr. p.* 13.

[k] Of theſe we might cite many of the Verticillatæ, as ſage, roſemary, lavender, hyſſop, pepper-mint, and many others: Chenopodium ambroſioides, Achillea Millifolium & Ageratum, Unxia camphorata; and more particularly Schœnanthus perſicus, (Kæmpf. Amœn. ex. p. 773) Radix Zedoariæ, (Grimm in *Eph. n. c. Dec. 2. an. 3. p.* 409.) Thyme (*Phil. Tranſ. vol.* 33. *p.* 321.) Radix Enulæ (Malouin *Chemie med. tom.* 1 *p.* 321. Anemone pratenſis. Alſo Rad. aſari, ſem. fœniculi, cubebæ, &c.

[l] l. c.

[m] *Eph. N. C. Dec.* 2. *a.* 10. *p.* 79.

[n] Kæmpf. l. c. p. 772. Thunb. *Flor. Japon. p.* 72.

* He ſays, "Habitat frequens, & inculta, non minus in China, quam in Japoniâ." *v. i. p.* 250.

Camphor by the Chineſe to be as follows: "They take ſome branches, freſh from the *Tchang*, chop them very ſmall, and lay them to ſteep in ſpring water for three days and three nights. After they have been ſoaked in this manner, they are put into a kettle, where they are boiled for a certain time, during which they keep continually ſtirring them with a ſtick made of willow. When they perceive that the ſap of theſe ſmall chips adheres ſufficiently to the ſtick in the form of a white froſt, they ſtrain the whole, taking care to throw away the dregs and refuſe. This juice is afterwards poured gently into a new earthen baſon, well varniſhed, in which it is ſuffered to remain one night. Next morning it is found coagulated, and formed into a ſolid maſs. To purify this firſt preparation, they procure ſome earth from an old earthen wall, which, when pounded and reduced to a very fine powder, they put into the bottom of a baſon made of red copper; over this layer of earth they ſpread a layer of Camphor, and continue thus until they have laid four ſtrata. The laſt, which is of very fine earth, they cover up with the leaves of pennyroyal; and over the whole they place another baſon, joining it cloſely to the former by means of a kind of red earth, that cements their brims together. The baſon thus prepared is put over a fire, which muſt be managed ſo as to keep up an equal heat: experience teaches them to obſerve the proper degree. But above all, they muſt be very attentive leſt the plaſter of fat earth, which keeps the baſons together, ſhould crack or fall off; otherwiſe the ſpirituous parts would evaporate and ruin the whole proceſs. When the baſons have been expoſed to the neceſſary heat, they are taken off and left to cool; after which they are ſeparated, and the ſublimated Camphor is found adhering to the cover. If this operation is repeated two or three times, the Camphor is found purer and in larger pieces. Whenever it is neceſſary to uſe any quantity of this ſubſtance, it is put between two earthen veſſels, the edges of which are ſurrounded with ſeveral bands of wet paper. Theſe veſſels are kept for about an hour over an equal and moderate fire, and when they are cool the Camphor is found in its utmoſt perfection, and ready for uſe." [o]

The crude Camphor, exported from Japan, appears in ſmall greyiſh pieces, and is intermixed with various extraneous matters: in this ſtate it is received by the Dutch, and purified by a ſecond ſublimation; after which it is formed into loaves, the ſtate in which it is brought to us. The peculiar method uſed by the Dutch in this proceſs has long been kept a ſecret; but others have ſucceeded in refining this drug, and the manner of performing it is now detailed and found to anſwer the purpoſe very well.[p]

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[o] See General Deſcription of China, tranſlated from the French, vol. i. p. 451.

Pure Camphor is white, pellucid, ſomewhat unctuous to the touch; of a bitteriſh aromatic acrid taſte, yet accompanied with a ſenſe of coolneſs; of a ſmell fragrant, and approaching to that of roſemary, but much ſtronger. It is totally volatile and inflammable; ſoluble in vinous ſpirits, oils, and the mineral acids; not in water, fixed or volatile alkaline liquors, nor in the acids of the vegetable kingdom.[q]

Camphor does not ſeem to have been known to the Greeks; but by the Arabians it was called Cafur, or Canfur, and was ſuppoſed to poſſeſs a refrigerant power.[r] To moſt ſmall inſects, and even to frogs and birds, the effluvia of Camphor prove very deſtructive, as appears from the experiments of Menghini and Carminati.[s] Taken inwardly by birds or quadrupeds, as rabbits, cats, dogs, ſheep, &c. to the quantity of a dram, it has been found univerſally to produce deleterious effects;[t] and in large doſes it has occaſioned ſymptoms equally dangerous on man, inſtances of which are related by Griffin, Alexander, Whytt, Collin, Hoffman, Calliſen, Cullen, and others. Whether Camphor ought to be conſidered as a califacient and ſtimulant, or as a refrigerant and ſedative, we are ſurpriſed ſhould of late have become a ſubject of controverſy; the experiments of Alexander, who found that his pulſe was leſſened ten vibrations in a minute,[u] ſufficiently eſtabliſh its ſedative character; and though ſome inſtances might ſhow a contrary effect, they are ſuch as occaſionally occur[x] from the uſe of medicines univerſally admitted to be the moſt powerful of this claſs, and are to be explained as a ſecondary effect upon the principle of a reaction in the ſyſtem; and our own experience, as well as that of ſeveral others noticed below, who have given it ſucceſsfully in inflammatory complaints, leads us to conclude with Dr. Cullen, that inflammation is never the direct operation of this ſubſtance.

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[p] The following method is directed in the *Pharm. Suecica. p.* 52.

Rec. Camphoræ crudæ libras duas,
Calcis uſtæ pulveratæ unciam unam.

Simul trita immittantur cucurbitæ vitreæ latæ et depreſſæ, atque arenæ calore ſenſim aucto liquetur Camphora. Remiſſo poſtea calore ſublimetur maſſa pellucida, a ſcoriis, confracto vitro, ſeparanda.

[q] Duncan's Edinburgh New Diſpenſatory.

[r] See Avicenna ed. Alpagi et Rinii. p. 563. Alſo Serapion.

[s] Mengh. *Comment. Bonon. tom.* 3. *p.* 314. *ſq.* Carm. *de animal. ex mephitibus interitu. p.* 186. [t] *Carm. & Mengh. l. c.* [u] *Experimental Eſſays, p.* 227.

Reſpecting the uſe of this important medicine, in different diſeaſes, we ſhall follow Dr. Cullen, whoſe words we ſhall tranſcribe, adding, however, proper notes and references, conformably to the plan hitherto purſued in this work.

“ It has been much employed in fevers of all kinds, particularly
“ in nervous fevers attended with delirium and much watchfulneſs;
“ and in ſuch I have frequently employed it with advantage. Some
“ time ago, I have often ſeen it employed by my fellow-practitioners
“ in ſuch caſes: and that the good effects of it did not always appear,
“ I imputed it to its being uſed only in ſmall quantities. Since we
“ came into the free uſe of wine and opium, Camphire has been little
“ employed in the practice of this country. The uſe of it, however,
“ has been very fully eſtabliſhed by ſome of the moſt eminent phyſicians
“ on the continent: among theſe I reckon the late learned and
“ experienced Werlhoff,[y] who often employed it in many inflammatory
“ diſeaſes with great benefit, and plainly gives us his opinion in
“ favour of its refrigerant power.

“ The uſe of this medicine has been eſpecially remarkable in putrid
“ fevers,[z] of which indeed we have not many inſtances in this country:
“ but from the very remarkable antiſeptic powers which it
“ diſcovers in experiments out of the body,[a] it is very probable that
“ when

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[x] Quarin ſays, “ Vidi enim in multis, quibus camphora majori doſi exhibita fuit, pulſum celerrimum, faciem ruberrimam, oculos torvos inflammatos, convulſiones et phrenitidem lethalem ſecutam fuiſſe.” *Method. med. febr. p.* 57.

[y] *Comm. Norimberg.* 1734. & 1735. We may alſo notice Huxham and Hoffman, l. inf. c.

[a] Pringle, l. c. app. p. 12.

[z] Pringle, *Diſ. of the Army, p.* 310. 316. Reverius, *Obſ. et hiſt. Cent. i. Obſ.* 24. & 29. *Cent.* 2. *Obſ.* 18. 62. 64. Hoffman, *Diſſ. de uſu interno Camphoræ* 1714. *p.* 20. Huxam, *Oper. T.* 2. *p.* 116. Ludwig, *Adverſ. Med. Pract. vol.* 1. *P. i. p.* 62. Collin, *Obſ. circa morb. P. iii. p.* 148. *ſqq.* Even in the Plague, ſee Tiſſot, *Epiſt. ad Hall. p.* 237. Mindereus,

“ when thrown into the body in large quantities, ſo that at leaſt its more ſubtile parts may be diffuſed over the whole ſyſtem, it may be expected to produce conſiderable antiſeptic effects. Its power in reſiſting and curing gangrene in the experiments of Collin,[b] are very remarkable; but whether that power be owing to its antiſeptic virtue alone, or to its operation at the ſame time on the nervous ſyſtem, I would not raſhly determine.

“ Both from its uſe in low, or what are called malignant fevers, and from its antiſeptic powers, it is highly probable that it has been of great ſervice in the confluent ſmall-pox.[c] It is alſo likely that it may be of ſervice in favouring the eruption of exanthemata, and of bringing them back to the ſkin, when from any cauſe they had ſuddenly receded, though I have no particular experience of this.

“ Theſe are the caſes of acute diſeaſes in which Camphire has been uſeful; and its uſe in many chronic caſes is equally well authenticated. Whenever diſeaſes depend upon a mobility of the nervous power, and an irregularity of its motions, it may be expected that ſuch a powerful ſedative ſhould be of ſervice. Accordingly, many practitioners have reported its virtues in hyſteric and hypochondriac caſes; and I myſelf have had frequent experience of it.

“ In ſpaſmodic and convulſive affections it has alſo been of ſervice;[d] and even in epilepſy it has been uſeful. I have not indeed known an epilepſy entirely cured by Camphire alone; but I have had

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Mindererus, *Lib. de peſte. cap.* 15. Jo. Crato, *Epiſt. Med. a Schulzio edit. p.* 103. Hartman in *Pract. chymiatr.* 364. Schreiber, *Obſerv. et cogitata de peſtilentia. p.* 58. *ſqq.* and others. [b] *L. c. P.* 3. *p.* 145. See alſo Pouteau *Melanges de Chirurgie. p.* 187.

[c] Haller, *Opuſc. path. p.* 145. Tiſſot, *Epiſt. Med. Pract. p.* 237. C. L. Hoffmanns *Nachricht von e. gut. Heilart d. Kinderblattern.* 1764. *in Vogel Bib. vol.* 5. *p.* 340. Collin, *l. c. P.* 3. *cas.* 22. 23. 24. In the Small-pox Hoſpital Camphor is in general uſe, and our own experience warrants us in ſaying, that in the early ſtages of this diſeaſe, and after proper evacuations have been effected, it ſeldom fails, in doſes of a ſcruple, to relieve the pains of the head and loins, and to procure reſt. But we have no reaſon to think with Roſenſtein and Boerhaave, that the activity of the variolous miaſmata is to be ſubdued by this medicine.

[d] Hoffman, *l. c. p.* 22. Home, *Clinical Exp. p.* 193. Locher, *Obſ. Pract. p.* 42. Millar, *on Aſthma, &c. p.* 104. Collin, *l. c. cas.* 8. and others.

" ſeveral inſtances of a paroxyſm which was expected in the courſe " of a night, prevented by a doſe of Camphire exhibited at bed-time; " and even this when the Camphire was given alone: but it has been " eſpecially uſeful when given with a doſe of cuprum ammoniacum, " of white vitriol, or of the flowers of zinc.

" Since the report of Dr. Kinnier, in the Philoſophical Tranſactions, " vol. XXXV. Camphire has been often employed in caſes of mania; " and I have given above an account of a trial which I had made " of it. In that caſe, however, it was not ſucceſsful; nor in ſeveral " other trials has it been more ſo with me, or other practitioners in " this country.

" We have had here lately, in a patient under the care of Mr. Lata, " ſurgeon, a notable example of the uſe of Camphire in a maniacal " caſe, which I think it proper to take notice of here.[e]

" This ſhows clearly enough the power of Camphire in mania; " and I have only to add, that though in ſeveral other inſtances it " has not made a cure, it has not in any inſtance of a moderate " doſe, that is, not exceeding half a dram, occaſioned any diſorder " in the ſyſtem; and in ſeveral caſes it has induced ſleep, and rendered the mind for ſome time more quiet.

" I obſerve that De Berger has been more ſucceſsful; and perhaps " the reaſon of our failure has been our not attending to his admonition. In his letter to Werlhoff on the ſubject of Camphire, he " has the following paſſage: *Multoties hoc remedio in mea praxi utor,* " *præcipue in inflammationibus internis, magno cum ſucceſſu, et demiror* " *tam multos medicos ab uſu ejus interno abhorrere. Non diu eſt, quod* " *præmiſſis præmittendis maniacum eo ſanitati penitus reſtitui. In eo* " *vero momentum præcipuum ſitum eſt, ut ſufficiente doſi et diu ſatis* " *exhibeatur.*

" This is particularly confirmed by a caſe given by Joerdens in " the *Commercium Norimbergenſe.* In ſeveral other writers there are " accounts of maniacal and melancholic caſes cured by the uſe of " Camphire; but many of the practitioners who report ſuch cures " acknowledge, that in many caſes it had diſappointed their expec-

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[e] In the caſe here alluded to, the doſe of Camphor was gradually increaſed to above ſixty grains three times a day, by which a cure was effected.

" tations.* Whether theſe failures have been owing to the not " employing at the ſame time nitre, vinegar, and ſome other remedies " which are ſuppoſed to contribute much to the virtues of Camphire, " we would not determine; but we are clear that mania is a diſeaſe " of conſiderable diverſity with reſpect to its cauſes, and that there " are certain caſes of it only to which Camphire is properly adapted. " In caſes of an organic affection of the brain, it is hardly to be " ſuppoſed that Camphire or any other remedy can be of uſe.‡

" I have mentioned above, that ſeveral practitioners have employed " Camphire in the moſt acute inflammatory diſeaſes; and therefore " we are not ſurpriſed to find that it has been given alſo internally " in caſes of acute rheumatiſm; and it is ſaid to have been with " advantage.[f] We have no experience of it, becauſe we have found " another method of cure generally ſucceſsful; but I take this " occaſion to mention its external uſe, as often of great ſervice in " removing the rheumatic pains of the joints or muſcles. This we " have often experienced, and have no doubt of Camphire having a " peculiar power in taking off the inflammatory ſtate in caſes both " of rheumatiſm and gout. In the caſe of rheumatiſm it is a matter " of common experience: in the caſe of gout it is more rare; but I " have had the following particular example of it. A gentleman had " brought from the Eaſt Indies an oil of Camphire, a native ſubſtance, " which ſeemed, by its ſmell and taſte, to be no other than Camphire " in that form, and which I perceive to be mentioned by naturaliſts " as a native ſubſtance, produced by ſeveral trees in the Eaſt Indies. " This the perſon poſſeſſed of recommended to all his acquaintances " as an infallible remedy for gout and rheumatiſm; and a gentleman " who had often laboured under the gout, and then felt the pains of

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* Dr. Ferriar, who gave Camphor in eight maniacal caſes, declares it to be " totally uſeleſs in theſe diſorders:" in one of theſe caſes two drams of Camphor, a ſcruple of muſk, and eight grains of opium, were given daily, " without producing ſleep, or the ſmalleſt impreſſion upon the diſeaſe." *Med. Hiſt. & Reflections, p.* 174.

‡ We may here remark, that nymphomania, and other local affections producing effects of a ſimilar kind, frequently ſuperinduce a general ſtate of mania, in which Camphor has been found more eſpecially uſeful.

[f] See Roſenſt. *Apot. p.* 7. Collin, l. c. aliique. For its good effects in fevers of the inflammatory kind, we have the teſtimony of Werlhof, De Berger, Albrecht, Wolf, Joerdens, all to be found in the *Commer. Norimb.*

“ it unuſually ſevere, was perſuaded to apply it. He had then the
“ gout exceedingly painful in the ball of the great toe and inſtep of
“ one foot. On this part he rubbed a quantity of the oil of Camphire;
“ and in about half an hour or a little more he was entirely freed
“ from the pain he had before. In leſs, however, than an hour
“ after, he had a pain and inflammation come upon the ſame part of
“ the other foot. As the pain here became pretty ſevere, he again
“ employed the oil of Camphire, and with the ſame effect of ſoon
“ relieving the pain very entirely. The conſequence of this was
“ alſo the ſame; for in leſs than an hour the pain and inflammation
“ returned to the foot that had been firſt affected: and here again
“ our patient, obſtinate in perſiſting in the trial of his remedy, again
“ applied the oil, and he had the ſame ſucceſs as before in relieving
“ the part affected, and with the ſame effect alſo of occaſioning a
“ tranſlation. But here the tranſlation being made to the knee, the
“ patient abſtained from any farther application of the oil, and ſuf-
“ fered the pain of the knee to remain for a day or two, and till it went
“ off by ſome ſwelling and deſquamation in the uſual manner.

“ This hiſtory ſhows ſufficiently the power of Camphire in relieving
“ the inflammatory ſpaſm and pain of the part chiefly affected; but
“ at the ſame time that it has no effect on the diatheſis of the ſyſtem,
“ and that, when that ſubſiſts, as Camphire is ready to occaſion a
“ tranſlation, it will always be employed in gouty caſes with great
“ danger. In caſes of acute rheumatiſm, we have had occaſion to
“ remark, that a ſtrong ſolution of Camphire in oil would relieve the
“ pain of the joint for the time chiefly affected; but it was very often
“ with the tranſlation of it to another joint ſoon after: and we have
“ therefore long ago ceaſed from employing ſuch an application in
“ all caſes when an acute rheumatiſm was very general and ſtrong
“ in the ſyſtem.

“ It may be ſuppoſed that it is analogous to this power of Cam-
“ phire in taking off an inflammatory ſtate, that this medicine has
“ been often found ſo uſeful in relieving toothach; and I have no
“ doubt that Camphire operates by the power mentioned in relieving
“ toothach, but it is alſo by exciting a copious flow of ſaliva and
“ mucus from the internal ſurface of the mouth, that water ſomewhat

" impregnated with Camphire, employed to waſh the mouth, has
" been frequently of ſervice in relieving the diſeaſe.

" However it may be with reſpect to tooth-ach, we have no doubt
" that the antiphlogiſtic nature of Camphire may be of uſe in curing
" ophthalmia: and this gives a good ground for the many attempts
" that have been made to introduce Camphire into the medicines intended to be employed externally in the cure of ophthalmia.

" We have now mentioned many of the virtues of Camphire as
" employed by itſelf, and muſt now mention ſome inſtances of its
" peculiar utility when combined with other medicines.

" When combined with draſtic purgatives, it is ſaid to moderate
" their acrimony, and thereby their violent operation. We have not
" indeed perceived this, and perhaps never tried it in a proper
" manner; but in the mean time, the reſpectable authority of Mr.
" Laſonne,[g] the father, ſatisfies me that it is well founded.

" Another opinion that has been very general is, that Camphire
" has the power of correcting the acrimony of cantharides. In
" oppoſition to this, we would not quote the facts given by Dr.
" Heberden of two ſeveral inſtances in which Camphire ſeemed to
" occaſion ſtrangury;* for I muſt conclude theſe facts to have been
" very accidental occurrences, as I have employed Camphire fifty
" times, even in large doſes, without my ever obſerving its having
" any effect upon the urinary paſſages. Mr. Laſonne, the father, has
" obſerved, as I have done frequently, that Camphire, though given
" very largely, never diſcovers its ſmell in the urine, whilſt it fre-
" quently does it in the perſpiration and ſweat.

" It was formerly a frequent practice in this country to anoint a
" bliſtering plaſter that was to be applied to the back, or other part,
" with camphorated oil, and this with a view of preventing ſtran-
" gury from the cantharides. The practice however has been long
" ago laid aſide, becauſe it was perceived that, in moſt perſons, if the
" plaſter was allowed to continue applied for above twelve hours, and
" while at the ſame time it was omitted to give the patient a large
" quantity of drink, a ſtrangury would come on notwithſtanding

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[g] Laſſone ſen. in *Hiſt. de la Société. Roy. de Medecine de Paris*, *vol.* 5. *p.* 265.

* *Med. Tranſ. vol. i. p.* 471.

" the unction of camphorated oil, and even the exhibition of a " quantity of Camphire internally. The practitioners of this country " have loſt their faith in the power of Camphire in correcting the " acrimony of cantharides; and for preventing the ſtrangury that " might otherwiſe ariſe, they truſt entirely to a large exhibition of " Arabic emulſion, and to the plaſter's not being allowed to lie on " too long.

" Another virtue aſcribed to Camphire in combination, is its " moderating the action of mercury; and if the ſaline preparations " of mercury are triturated with a portion of Camphire, this abſtracts " a part of the acid that had been united with the mercury, and " therefore renders the preparation more mild than before, and at " the ſame time does not deprive entirely the preparation of much " of its deobſtruent virtue. This we have had experience of in that " very acrid preparation of mercury the turbeth mineral, and alſo in " the mercurius dulcis or calomel, which, by being triturated with " Camphire, become leſs purgative, and leſs ready to excite ſalivation. How far this mitigation of the preparations of mercury " leaves them equally powerful as before in the cure of ſyphilis, I " cannot certainly determine; but am of opinion that it does not, " if they be employed in the ſame quantities as they would have " been before.

" This mitigation of the ſaline preparations of mercury, by a " combination with Camphire, will be readily admitted; but many " practitioners go farther, and alledge that mercury, in every condition, united with Camphire, becomes a more mild ſubſtance, leſs " irritating to the ſyſtem, while it is equally powerful in curing the " diſeaſes to which it is otherwiſe adapted.* I muſt admit the experience of the practitioners of France in this matter, but thoſe of " this country know nothing of it; and I can aſſert, that in many " trials, a quantity of Camphire added to our common mercurial " ointment neither prevented the unction, in the uſual quantity, " from exciting ſalivation, nor rendered the ſymptoms of it more " mild than uſual.

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* Raulin, *Obſerv. de Medecine. p.* 266.
Deſpatureaux *in Hall. Diſſ. Pract. vol. i. p.* 531.

“ A peculiar combination of Camphire ſaid to have conſiderable effects, is that with opium. The employment of opium is in many perſons attended with ſome inconvenience and diſorder, as I have obſerved above; and every practitioner knows it to be alledged by ſome reſpectable perſons, that Camphire joined with it prevents theſe diſorders. It may be ſo, but I have not found it in my experiments. I have found large doſes of Camphire diſpoſe to ſleep, but commonly with that ſame confuſion of head and turbulent dreams which ſometimes ariſe from the uſe of opium; and I have not found that a ſmall quantity of Camphire has any effects in increaſing the power of opium, or of rendering the operation of it different from what it would have been if employed alone. But againſt the reſpectable authorities of Laſonne and Halle,[h] I muſt ſuſpect that my experiments have not been made properly or often enough.

“ There is ſtill another inſtance of the improvement of a medicine by a combination with Camphire. Mr. Laſonne aſſures us, that Camphire, joined with the Peruvian bark, gives it more energy and force, whether it be to be employed for the purpoſe of curing fever or gangrene; and I believe this to be well founded.

“ After thus treating of the virtues of Camphire, we muſt ſpeak of its doſe and exhibition. It will appear clearly from what is ſaid above, that it may be given in doſes of very different quantities; and it appears to me from many trials, that doſes of a few grains, repeated only after long intervals, have hardly any effect at all, and that, to obtain ſenſible effects from it, it muſt either be given in large doſes, not under that of twenty grains, or, if given in ſmaller doſes, theſe muſt be repeated frequently after ſhort intervals. The latter practice is preferred by ſome eminent practitioners. To what length in either way we may proceed, I have not experience enough to determine with any preciſion. From the effects of two ſcruples given in one doſe in the caſe narrated above, and in another quoted from Dr. Hoffman, it would appear that ſuch doſes are violent and dangerous; but from ſome other expe-

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[h] Hallé, *Mem. de la Société de Med. tom. cit. p.* 73.

“ riments, it appears that larger doſes have been ſometimes given
“ with impunity: and when it is given in divided doſes, it appears
“ from Collin's experiments, that it may be given to the quantity
“ of a dram, or two drams in the courſe of a day; and in one of
“ his experiments it was given to the quantity of half an ounce:
“ and the ſame will appear from the hiſtory which I have given
“ above. It is probable that from large doſes only, conſiderable
“ effects are to be expected; and as, from many experiments, it
“ appears that the effects of Camphire are not very durable in the
“ body, it will be obvious that the repeated and long continued uſe
“ of it may be neceſſary to the cure of ſeveral diſeaſes.

“ With reſpect to the exhibition of this medicine, it is, in the firſt
“ place, neceſſary that it ſhould be always very minutely divided,
“ as we know it is not readily diſſolved in the ſtomach;[1] and
“ while it remains there, it will float on the ſurface of the other
“ contents, and in that way be applied to the upper orifice of the
“ ſtomach, and give occaſion to ſome pain there. It ought therefore
“ to be minutely divided before it be given; and this may be done
“ by rubbing it firſt in a mortar with any dry powder, ſuch as nitre
“ or hard ſugar: but to make certain of a minute diviſion, it is
“ proper at the ſame time to add a few drops of rectified ſpirit of
“ wine, or of other ſuch ſpirituous menſtruum as the ſpiritus vitrioli
“ dulcis, or liquor anodynus mineralis of Hoffman.

“ It may alſo be divided by rubbing it with the mucilage of gum
“ arabic; but this will alſo be more perfectly executed if the Cam-
“ phire is previouſly diſſolved by a little ſpirit of wine or expreſſed
“ oil. By its being diffuſed in the mucilage of gum arabic, it may
“ be again diffuſed in any watery fluid for more convenient exhibi-
“ tion; but it is to be obſerved, that Camphire diffuſed in a watery
“ fluid is ready to exhale from it, or ariſe to its ſurface, and to
“ render the exhibition more diſagreeable. When, therefore, any
“ large quantity of water in which Camphire is diffuſed is to be
“ prepared at once, it is proper to employ ſome means for entangling
“ the Camphire. Sugar alone does not ſeem to be ſufficient for the

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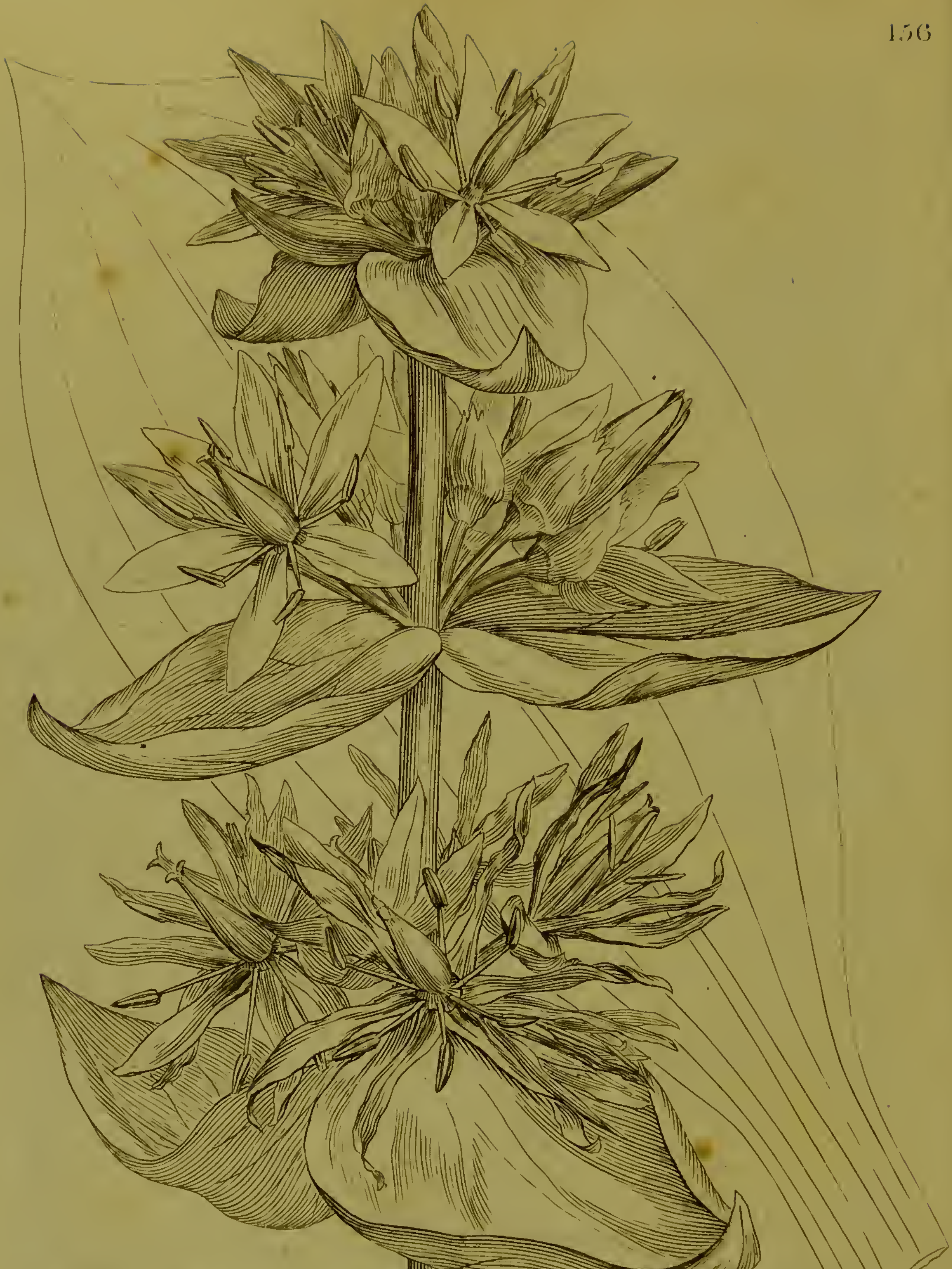
[1] If this be not attended to, it conſtantly occaſions heat and uneaſineſs at the ſtomach. See Fothergill, *Med. Obſerv. &c. vol. i. p.* 432.

“ purpoſe;



Gentiana lutea

Publiſhed by Dr. Woodville, Auguſt 1. 1792.

"purpoſe; and it is more effectually done by triturating the Camphire with mucilage alone, or with a portion of ſweet almonds, and diffuſing it again by means of mucilage into an emulſion.

"It has been thought that the virtues may be increaſed by exhibiting along with it a portion of nitre; but in many trials I have not been ſenſible of the benefit derived from the nitre, which, in any quantity that can be conveniently employed, has little effect on the ſyſtem. It is with more probability alledged, that vinegar exhibited with Camphire is of ſervice. Vinegar certainly gives the beſt means of correcting the taſte of Camphire, and ſeems even to render it leſs diſagreeable to the ſtomach; and we may allow that both by its refrigerant and antiſeptic powers, it may contribute ſomewhat to the virtues of the Camphire."[k]

[k] *M. M. vol. ii. p.* 309.

GENTIANA LUTEA. YELLOW GENTIAN.

SYNONYMA. Gentiana. *Pharm. Lond. & Edinb.* Gentiana major. *Gerard Emac. p.* 432. *Raii Hiſt. p.* 716. Gentiana major lutea. *Bauh. Pin. p.* 187. *Park. Parad. p.* 350. *Tournf. Inſt. p.* 80. Gentiana vulgaris major, Ellebori albi folio. *J. Bauh. Hiſt. vol. iii. p.* 520. Gentiana caule folioſo, foliis ovatis nervoſis, floribus rotatis verticillatis. *Hall. Stirp. Helv. n.* 637. Icon, *Miller's Figures, tab.* 139. *fig.* 2.

Claſs Pentandria. *Ord.* Digynia. *Lin. Gen. Plant.* 322.

Eſſ. Gen. Ch. *Cor.* monopetala. *Caps.* 2-valvis, 1-locularis. *Receptaculis* 2, longitudinalibus.

Sp. Ch. G. corollis ſubquinquefidis rotatis verticillatis, calycibus ſpathaceis.

THE root is perennial, long, cylindrical, externally brown, internally yellowiſh: the flower ſtem is ſtrong, ſmooth, erect, tapering, and riſes two or three feet in height: the leaves, which proceed from the lower part of the ſtem, are ſpear-ſhaped, large, entire, ribbed, ſeſſile, and pointed; thoſe on the upper part are concave, ſmooth, egg-ſhaped, and of a pale or yellowiſh green colour: the flowers are large, yellow, produced in whorls, and ſtand upon ſtrong peduncles: the calyx is a membranous deciduous ſpatha: the corolla is divided to its baſe into five or more long narrow ſpreading elliptical ſegments: the filaments vary in number from five to eight; they are ſhorter than the corolla, and furniſhed with long erect antheræ: the germen is long, conical, without a ſtyle, and ſupplied with two reflexed ſtigmata: the capſule is conical, of one cell, divided into two valves, and contains numerous ſmall ſeeds. It flowers in June and July.

This plant is a native of the Alps, and according to the Hortus Kewenſis was firſt cultivated in Britain in the time of Gerard. But the Gentian with which our ſhops are ſupplied, is imported from the mountainous parts of Switzerland, Germany, &c.||

The root, which is the only medicinal part of the plant, has little or no ſmell, but to the taſte it manifeſts great bitterneſs, a quality which is extracted by aqueous, ſpirituous, and vinous menſtrua, though not in ſo great a degree by water as by ſpirit; and the extract of this root, prepared from the watery infuſion, is leſs bitter than that made from the ſpirituous tincture.[a]

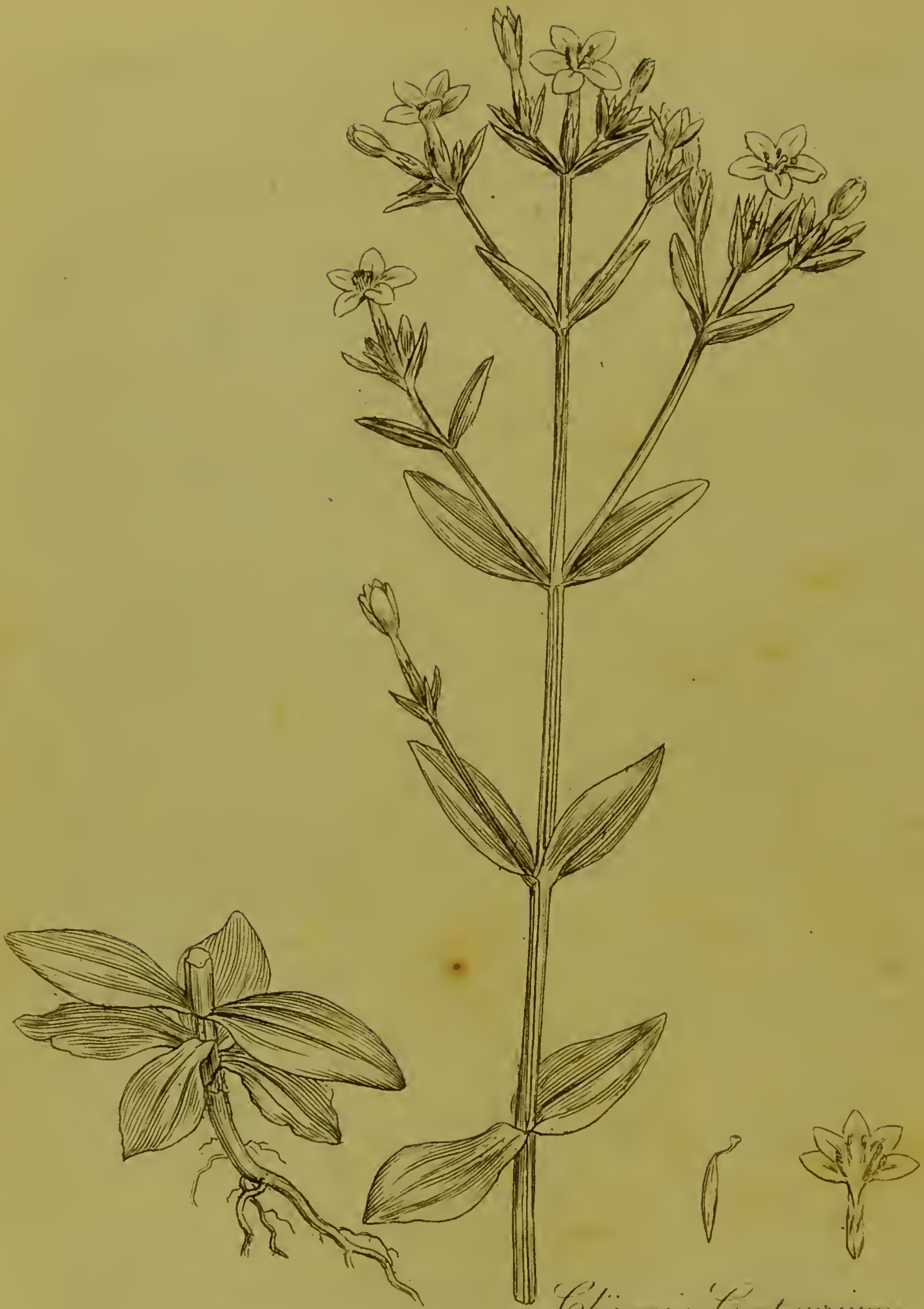
Gentian ‡ is the principal bitter now employed by phyſicians;* and as the intenſe bitters are generally admitted to be not only tonic and ſtomachic, but alſo anthelmintic, antiſeptic, emmenagogue, antiarthritic, and febrifuge, this root has a better claim to the poſſeſſion of theſe powers than moſt of this kind.

|| In pratis montanis & ſubalpinis, poſt horæ adſcenſum ex planitie ubique, ut ſuper *Neuenſtatt* verſus *Nodz*, ſub *Panex*, in pratis *Jorogne*. Latos tractus occupat, quæ a pecore non tangatur. *Haller*, *l. c.*

[a] *Lewis*, *M. M. p.* 320.

‡ The name Gentian is ſuppoſed to be taken from Gentius, King of Illyria, who firſt diſcovered its uſes.

* The roots of other ſpecies of Gentian are reported to be equally bitter, and are preferred by ſome to that of the lutea viz. G. purpurea, aſclepiadea, Pneumonanthe, campeſtris, Amarella.



Chironia Centaurium

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Many dyſpeptic complaints, though ariſing from debility of the ſtomach, are more effectually relieved by bitters than by Peruvian bark; and hence may be inferred their ſuperior tonic power on the organs of digeſtion. And the Gentian, joined with equal parts of tormentil or galls, we are told by Dr. Cullen [b] conſtantly ſucceeded in curing intermittents, if given in ſufficient quantity.

As a ſimple bitter the Gentian is rendered more grateful to the ſtomach by the addition of an aromatic, and for this purpoſe orange peel is commonly employed. The officinal preparations of this root are, the infuſum gentianæ compoſitum, & tinctura gentianæ compoſita, ph. L. and the infuſum amarum, vinum amarum, tinctura amara, ſive elixir ſtomachicum,* ph. E. and by both pharmacopœias the extract is directed.

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[b] *M. M. p. v. ii. p.* 72.

* Dr. Cullen obſerves, that this is the ſame as Stoughton's elixir.

About forty-five years ago, a poiſonous root was diſcovered in ſome of the parcels of Gentian brought to London, not however before its fatal effects had been experienced. (See *Dr. Brockleſky's account*, *Phil. Tranſ. vol.* 45. *p.* 240.) This root was probably that of the Aconitum Thora, which is known to grow along with the Gentian. The former is to be diſtinguiſhed from the latter by having a ſtrong ſmell, and being without bitterneſs, and of a whitiſh colour.

CHIRONIA CENTAURIUM. CENTAURY.

SYNONYMA. Centaurium minus. *Pharm. Lond. & Edinb. Raii Hiſt. p.* 1092. *Synop. p.* 286. *Bauh. Pin. p.* 278. Centaurium minus vulgare. *Park. Theat. p.* 272. Centaurium parvum. *Gerard Emac. p.* 547. Gentiana caule dichotomo; floribus infundibuliformibus, ſtriatis, quinquefidis. *Hall. Stirp. Helv. n.* 648. Gentiana Centaurium. *Lin. Sp. Plant. p.* 332. *Hudſ. Flor. Ang. p.* 102. *Lightf. Flor. Scot. p.* 152. *Flor. Dan. Icon.* 617. Chironia Centaurium. *Withering Bot. Arrang. p.* 237. *Curtis Flor. Lond. Ic.* 247.

Claſs Pentandria. *Ord.* Monogynia. *Lin. Gen. Plant.* 255.

Eſſ. Gen. Ch. *Cor.* rotata. *Piſtillum* declinatum. *Stam.* tubo
corollæ inſidentia. *Antheræ* demum ſpirales.
Pericarp. 2-loculare.

Sp. Ch. Gentiana corollis quinquefidis infundibuliformibus, caule
dichotomo, piſtillo ſimplici. *L. Syſt. Veg.* 268.

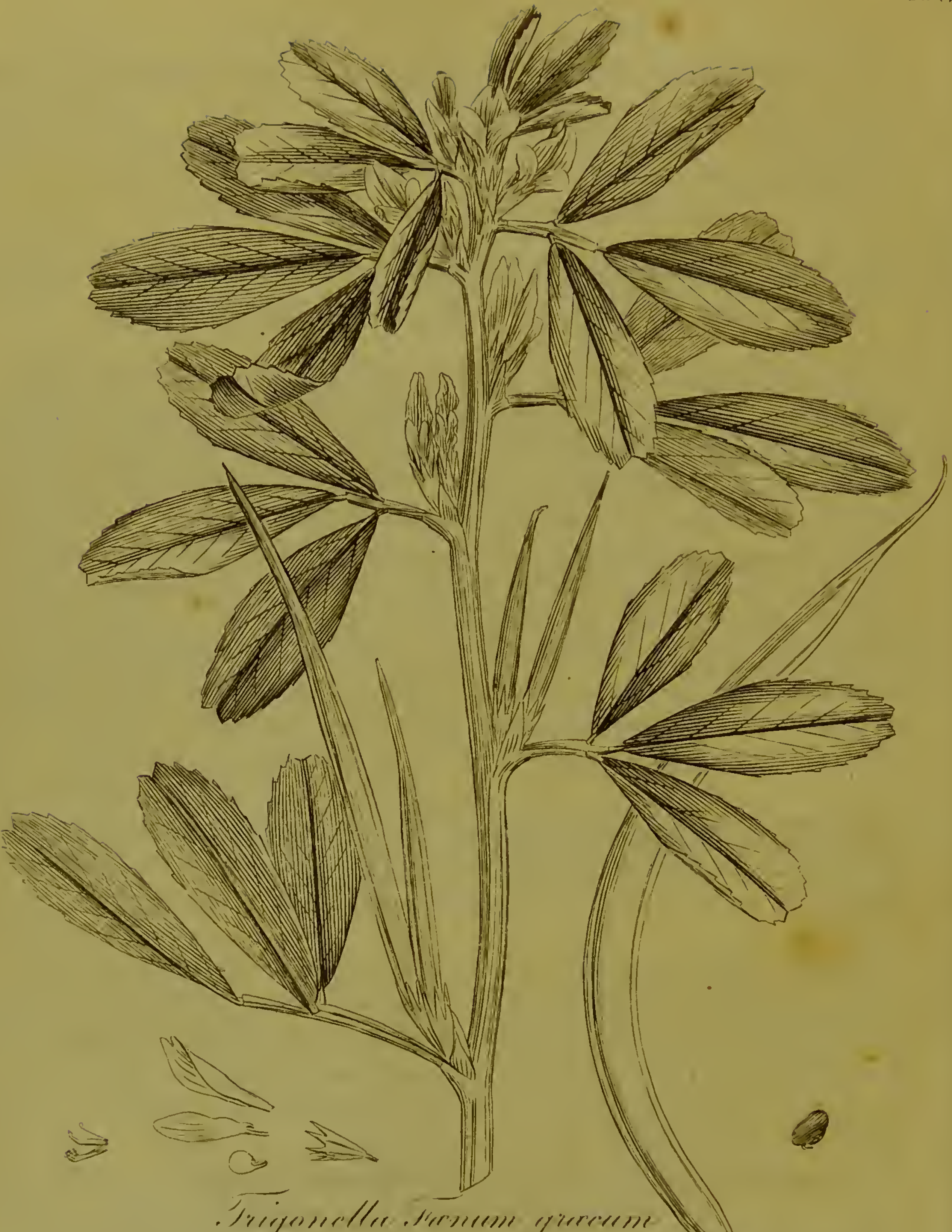
THE root is annual, woody, fibrous, and of a yellowiſh colour: the ſtalk is erect, with few branches, ſmooth, angular, and uſually riſes from ſix to ten inches in height: the leaves are oppoſite, ſeſſile, ſmooth, oblong, ribbed, obtuſely pointed: the flowers are terminal, produced in a corymbus or bunch, and are of a pink or roſe colour: the calyx is divided into five narrow erect permanent ſegments: the corolla is funnel-ſhaped, the *tube* of which is cylindrical, longer than the calyx, and divided at the *limb* into five egg-ſhaped ſegments: the filaments are five, white, ſlender, ſhorter than the corolla, and furniſhed with yellow oblong antheræ, which finally become twiſted: the germen is oblong, green, ſupplied with a ſimple ſtyle, which is crowned with a clubbed ſtigma. It grows in woods and paſtures, and flowers in July.

As the botanical deſcription of this plant correſponds exactly with that of the genus chironia,[a] we have followed ſeveral reſpectable botaniſts, and ſeparated it from the gentians, with which it was originally claſſed by Linnæus.

" The active parts of this plant are diſſolved readily both by water and rectified ſpirit: the herb, after infuſion in ſufficient quantities of either menſtruum, remaining inſipid. Water takes up along with the bitter a large quantity of an inſipid mucilaginous ſubſtance, whereas rectified ſpirit ſeems to diſſolve little more than the pure bitter part. Hence on inſpiſſating the two ſolutions to the ſame conſiſtences, the watery extract proves much leſs bitter than the ſpirituous, and its quantity above four times greater."*

[a] It is aptly obſerved by Mr. Curtis, that Centaurium thus aſſumes its proper name κενταυριον, from Chiron the Centaur. See *Plin. L.* 25. *c.* 6. *p.* 635.

* Lewis, *M. M.*



Trigonella Fœnum græcum

Publiſhed by Dr. Woodville August 1. 1792.

Centaury is juſtly eſteemed to be the moſt efficacious bitter of all the medicinal plants indigenous to this country. It has been recommended as a ſubſtitute for gentian,[b] and, by ſeveral, thought to be a more uſeful medicine: experiments out of the body alſo ſhew it to poſſeſs an equal degree of antiſeptic power.[c] To it therefore are to be aſcribed all thoſe medical effects noticed of the preceding article. Many authors have obſerved, that along with the tonic and ſtomachic qualities of a bitter, Centaury frequently proves cathartic; but it is probable, that this ſeldom happens, unleſs it be taken in very large doſes. The uſe of this, as well as of the other bitters, was formerly common in febrile diſorders, previous to the knowledge of peruvian bark, which now ſuperſedes them perhaps too generally; for many caſes of fever occur, which are found to be aggravated by the Cinchona, yet afterwards readily yield to ſimple bitters.

The tops[d] of Centaury plant are directed for uſe by the Colleges, and are moſt commonly given in infuſion, but they may alſo be taken in powder, or prepared into an extract.

[b] "It is ſaid that the extract of this plant is leſs agreeable than that of gentian; but I find no difference between them, and think it ſhould be conſtantly ſubſtituted for that of gentian, as it may be more cheaply prepared." *Cullen, M. M. vol. ii. p.* 74.

[c] See Pringle, *Diſ. of the Army, App. p* 66.

[d] Lewis aſſerts, that no bitterneſs reſides in the petals, but from taſting the recent flowers we diſcover this quality in a very conſiderable degree.

TRIGONELLA FŒNUM GRÆCUM. FENUGREEK.

SYNONYMA. Fœnum græcum. *Pharm. Lond. & Edinb. Gerard Emac. p.* 1196. *Raii Hiſt. p.* 954. Fœnum Græcum ſativum. *Bauh. Pin. p.* 348. Medicago leguminibus ſubſolitariis ſeſſilibus erectis reflexo-falcatis acuminatis. *Hort. Cliff. p.* 376.

Claſs Diadelphia. *Ord.* Decandria. *Lin. Gen. Plant.* 898.

Eſſ. Gen. Ch. *Vexillum* et *Alæ* ſubæquales, patentes, forma corollæ 3-petalæ.

Sp. Ch. T. leguminibus ſeſſilibus ſtrictis erectiuſculis ſubfalcatis acuminatis, caule erecto.

THE root is annual, long, tapering, whitiſh, and fibrous: the ſtalk is erect, round, ſmooth, beſet with ſoft hairs, often branched, and riſes about two feet in height: the leaves are oblong, obtuſe, ſlightly ſerrated, of a diſagreeable ſmell, and ſtand in ternaries upon the common footſtalks, which are placed alternately: the flowers are white, and appear in pairs at the alæ of the leaves: the calyx is funnel-ſhaped, ſtriated, covered with white hairs, and divided at the brim into five narrow pointed ſegments: the corolla is of the papilionaceous kind, conſiſting of a vexillum or upper petal, which is oblong, erect, concave at the baſe, and indented at the apex: two alæ or lateral petals, which are entire, oval, reflexed, and elongated at the baſe; a carina or under petal, which is ſmall, and of an orbicular form: the filaments are ten, nine of which are united, and all furniſhed with ſimple antheræ: the germen is ſword-ſhaped, terminated by a ſhort tapering ſtyle, which is furniſhed with a ſimple ſtigma: the pericarpium is a long compreſſed falcated pod, containing numerous rhomboidal ſeeds, of a browniſh yellow colour. It flowers from June till Auguſt.

This plant is ſaid to be a native of Montpelier, and to have been firſt cultivated in Britain by Gerard.[a] In dry ſeaſons it maturates its ſeeds here very well, and, judging by our own experience, we think it might be cultivated to great advantage in this country.‡ The ſeeds of Fenugreek are brought to us from the ſouthern parts of France and Germany, where they are annually ſown for the purpoſe of exportation to different places.

" Fenugreek ſeeds have a ſtrong diſagreeable ſmell, and an unctuous farinaceous taſte, accompanied with a ſlight bitteriſhneſs. An ounce renders a pint of water thick and ſlimy. To rectified ſpirit they give out the whole of their diſtinguiſhing ſmell and taſte, and afterwards to water a ſtrong flavourleſs mucilage." [b]

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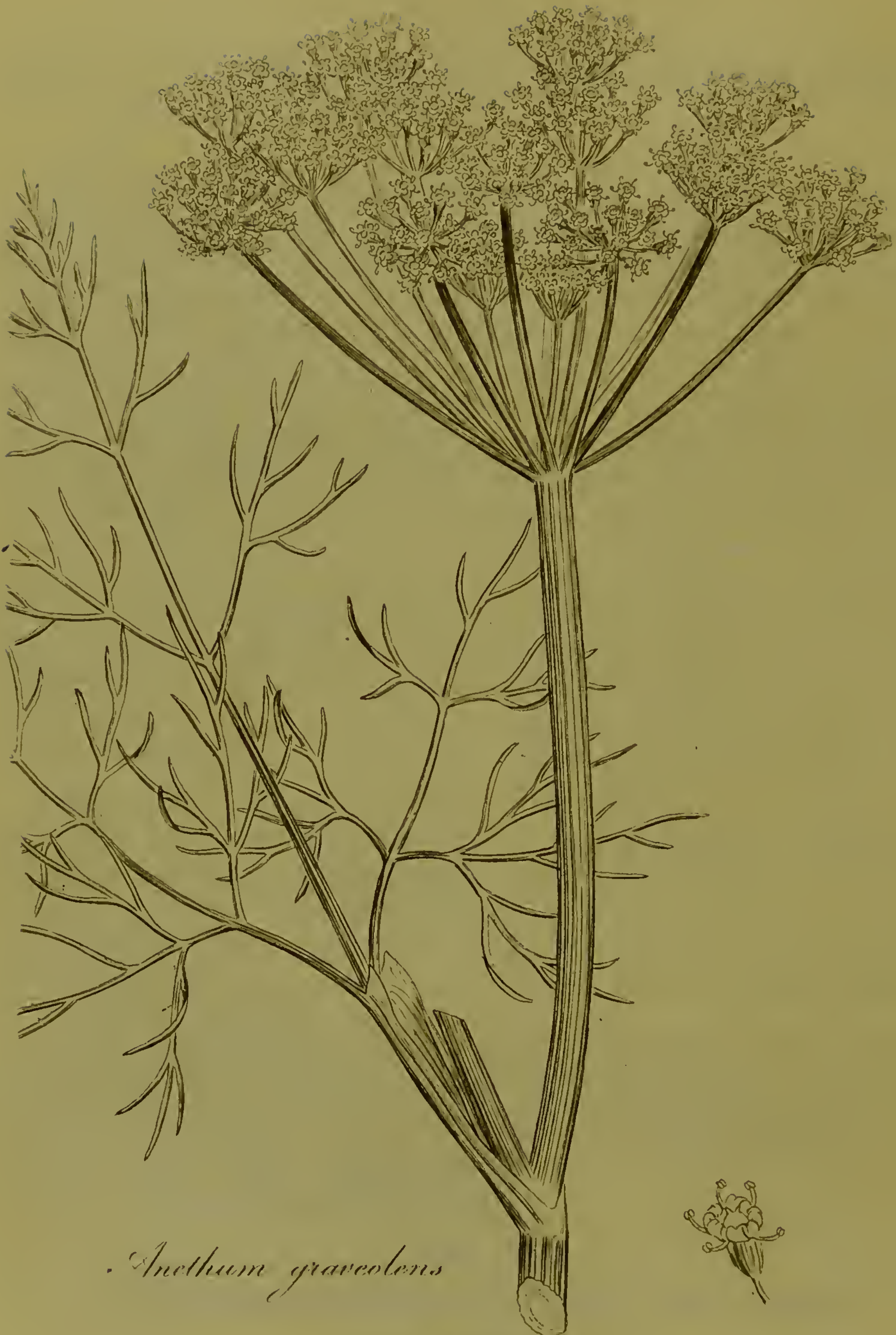
[a] *Hort. Kew.*

‡ Miller has given directions for cultivating this plant. See *Dict.*

[b] Lewis, *M. M. p.* 304.



Anethum graveolens

Publish'd by Dr. Woodville, August 1. 1792.

Theſe ſeeds are never given internally, their principal uſe being in cataplaſms and fomentations, for ſoftening, maturating, and diſcuſſing tumours; and in emollient glyſters. They were alſo an ingredient in the *oleum e mucilaginibus* of the ſhops: but this has no longer a place in the pharmacopœia.

ANETHUM GRAVEOLENS. COMMON DILL.

SYNONYMA. Anethum. *Pharm. Lond. & Edinb. Gerard. Emac. p.* 1033. *Raii Hiſt. p.* 415. Anethum hortenſe ſive vulgare. *Park. Theat. p.* 886. Anethum hortenſe. *Bauh. Pin. p.* 147.

Claſs Pentandria. *Ord.* Digynia. *Lin. Gen. Plant.* 364.

Eſſ. Gen. Ch. Fructus ſubovatus, compreſſus, ſtriatus. *Petala* involuta, integra.

Sp. Ch. A. fructibus compreſſis.

THE root is annual or biennial, long, tapering, whitiſh, ſending off ſtrong fibres, and ſtriking deeply in the ground: ſeveral ſtems uſually proceed from the ſame root, and are erect, ſmooth, channelled jointed, branched, covered with a glaucous exudation, and riſe about two feet in height: the leaves ſtand upon ſheathy footſtalks, placed at the joints of the ſtalk, and are alternate, ſmooth, doubly pinnated; pinnæ linear, pointed: the flowers are produced in terminal umbels, which are large, flat, and like the partial umbels, compoſed of ſeveral radii: it has no involucrum: the corolla conſiſts of five petals, which are yellow, egg-ſhaped, obtuſe, concave, and have their points turned inwards: the five filaments are yellow, longer than the corolla, and furniſhed with roundiſh antheræ: the germen is placed below the inſertion of the petals, and is covered by the nectarium: the two ſtyles are very ſhort, and terminated by obtuſe ſtigmata: the ſeeds are two, oval, flat, ſtriated, and ſurrounded with a membranous margin. The flowers appear in June and July.

This plant, which is a native of Spain and Portugal, appears by the Hortus Kewenſis, to have been firſt cultivated in Britain by Mr. Gerard in 1597.[a] The ſeeds of Dill are directed for uſe by the London and Edinburgh Pharmacopœias; they have a moderately warm pungent taſte, and an aromatic ſmell, but like that of the plant, not of the moſt agreeable kind.[b] "Water extracts very little of their virtues either by infuſion or digeſtion for many hours. In boiling, their whole flavour exhales along with the watery vapour, and may be collected by diſtillation. Along with the water ariſes a conſiderable portion of pungent eſſential oil, ſmelling ſtrongly of the Dill. Theſe ſeeds impart their flavour to rectified ſpirit by digeſtion, but not by diſtillation, the active part of the ſeeds remaining in the extract."[c]

The ſeeds and the plant itſelf were formerly much uſed in medicine, and from the time of Dioſcorides have been eſteemed for their carminative and hypnotic powers, and therefore have been recommended in flatulent colics, and certain dyſpeptic ſymptoms proceeding from a laxity of the ſtomach.[d] They are alſo ſaid to be more effectual than the other ſeeds of this claſs in promoting the ſecretion of milk.[e] At this time however the ſeeds of Dill are ſeldom employed, though a ſimple diſtilled water prepared from them is directed both by the London and Edinburgh Pharmacopœias.

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[a] *Hort. Kew.*

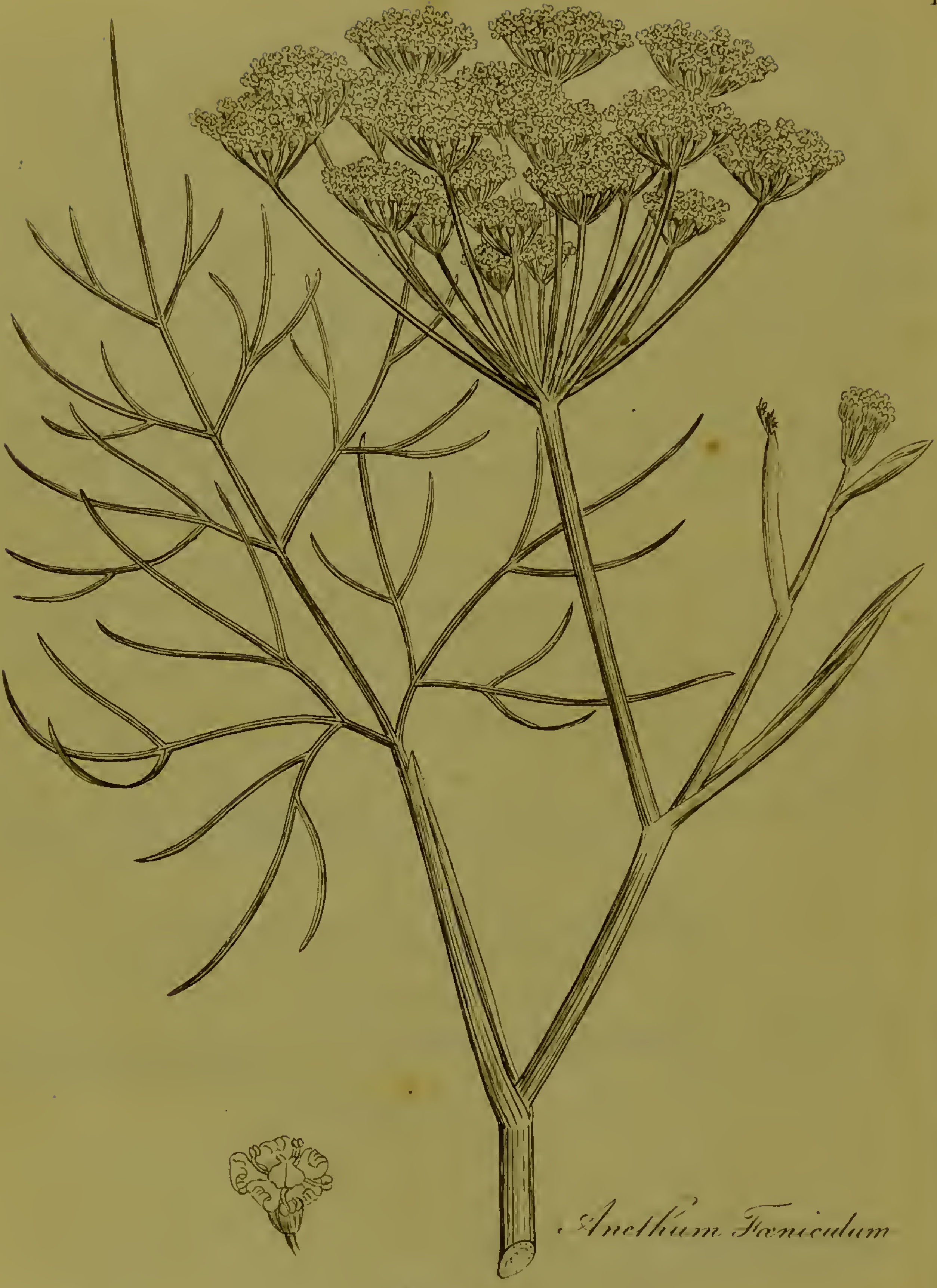
[b] Virgil does not ſeem to have been of this opinion:
Narciſſum & florem jungit bene olentis anethi. Ecl. 2. v. 45.

[c] Lewis, *M. M. p.* 58.

[d] Foreſtus ſpeaks highly of their uſe in allaying vomiting and hiccup. *Oper. Lib.* 6. *Obſ.* 29. & *Lib.* 18. *Obſ.* 12.

[e] Murray, *App. Med. vol. i. p.* 289.

ANETHUM FŒNICULUM.



Anethum Fœniculum

Published by Dr. Woodville, August 1. 1792.

ANETHUM FŒNICULUM. COMMON FENNEL.

SYNONYMA. Fœniculum dulce. *Pharm. Lond. & Edinb.* et Fœniculum vulgare. *Pharm. Edinb.* Fœniculum dulce, et Fœniculum vulgare germanicum. *Bauh. Pin. p.* 147. Fœniculum vulgare. *Gerard. Emac. p.* 1032. *Park. Theat. p.* 884. *Raii Hiſt. p.* 457. *Synop. p.* 217. *Haller Hiſt. Stirp. Helv. n.* 760. A. Fœniculum. *Hudſon, Fl. Ang. p.* 126. *Relhan. Fl. Cantab.* 123. *Withering Bot. Arr. p.* 311. *ic. Mill. Illuſt.*

Claſs Pentandria. *Ord.* Digynia. *Lin. Gen. Plant.* 364.

Eſſ. Gen. Ch. *Fructus* ſubovatus, compreſſus, ſtriatus. *Petala* involuta, integra.

Sp. Ch. A. fructibus ovatis.

THE root is perennial, white, tapering, and fibrous; three or four ſtems uſually riſe from the ſame root, and are erect, round, ſtriated, of a glaucous tinge, jointed, branched, and three or four feet in height: the leaves ſtand alternately at the joints of the ſtem upon long ſtriated ſheaths, and are bipinnated, divided into long linear pointed pinnæ, of a deep green colour: the flowers are produced in terminal umbels, which reſemble thoſe of Dill: there are no involucra: the corolla conſiſts of five petals, which are yellow, ovate, emarginated, and have their points turned inwards: the five filaments are yellow, ſpreading, ſhorter than the petals, and ſupplied with double antheræ: the germen is ſmooth, cylindrical, truncated, ſtriated, and covered with the nectarium, which is a large roundiſh fleſhy yellow ſubſtance, divided into two parts, from each of which riſes a ſhort thick ſtyle, terminated by a blunt ſtigma: the ſeeds are two, oval, and deeply furrowed. The flowers appear in June.

The ſeeds of Fœniculum dulce are admitted of the Materia Medica in both Pharmacopœias, and the root of Fœniculum vulgare alſo in that of the Edinburgh College;* but both theſe plants being conſidered as varieties of the Anethum Fœniculum, they are compriſed in the figure here prefixed.

Fennel is found to grow wild in many parts of England, affecting dry chalky ſoils; but that which is cultivated in our gardens is more fragrant, of a ſweeter flavour, and, excepting the ſeeds, which are brought from the ſouth of Europe,[a] commonly uſed both for medicinal and culinary purpoſes.

The ſeeds have an aromatic ſmell, and a warm ſweetiſh taſte.—"Water extracts the virtue of theſe ſeeds very imperfectly by infuſion, but carries it off totally in evaporation: after repeated infuſion, they retain part of their aromatic warmth, and the liquors are much leſs agreeable than the ſeeds in ſubſtance; after boiling for ſome time, the ſeeds prove entirely inſipid, and the decoction, inſpiſſated to the conſiſtence of an extract, is very nearly ſo. By diſtillation they impregnate water with their flavour: a gallon receives a ſtrong impregnation from a pound of the ſeeds. A large portion of eſſential oil ſeparates in the diſtillation;—in ſmell reſembling the fennel, in taſte mild and ſweetiſh like the oil of aniſeeds, and like it alſo congealing, by a ſlight cold, into a white butyraceous maſs. Theſe ſeeds contain likewiſe a conſiderable quantity of a groſs oil of the expreſſed kind, which, when freed from the eſſential oil, diſcovers no particular ſmell or taſte. This oil is extracted, along with the aromatic matter of the fennel, by digeſtion in rectified ſpirit, but ſeparates and riſes to the ſurface upon inſpiſſating the filtured tincture. The ſpirit, gently diſtilled off, has very little of the flavour of the ſeeds; the oily matter retains a part both of their taſte and ſmell; but much the greateſt part remains concentrated in the extract."[b]

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* "By Fœniculum dulce, (Dr. Cullen ſays) we mean ſeeds imported from a ſouthern climate; we allow however the roots to be taken, as they moſt conveniently may, from the plants growing in our gardens." *M. M. vol. ii. p.* 158.

[a] "Fœniculum dulce copioſiſſime colitur in Italia & Sicilia, quarum regionum clima plus illi conciliat dulcitatis, quam in Gallia attingere poteſt, quare etiam planta junior, cum radice & herba, frequenter ibi eſtur cruda cum ſale & pane." *Bergius, M. M. p.* 228. See Labat, *Voyage en Eſpagne & en Italie. t.* 5. *p.* 170.

[b] Lewis, *M. M. p.* 303.

The

α Paſtinaca tenuifolia ſativa radice lutea. *C. Bauh.*
YELLOW GARDEN CARROT.

β Paſtinaca tenuifolia ſativa radice atrorubente. *C. Bauh.*
RED GARDEN CARROT. *Aiton. Hort. Kew.*

Claſs Pentandria. *Ord.* Digynia. *Lin. Gen. Plant.* 333.

Eſſ. Gen. Ch. *Cor.* ſubradiatæ, omnes hermaphroditæ.
Fructus pilis hiſpidus.

Sp. Ch. D. ſeminibus hiſpidis, petiolis ſubtus nervoſis.

THE root is biennial, large, ſpindle-ſhaped, fleſhy, and yellowiſh: the ſtalk is round, erect, branched, furrowed, hairy, and riſes about two feet in height: the leaves are large, and at the root many times pinnated; thoſe on the ſtalk are gradually ſmaller towards the top, and cut into irregular pinnulæ, which on the upper ſide are of a deep green colour: the leaves are all ſomewhat hairy, and ſtand upon footſtalks, which are nerved on the under ſide: the umbels are compoſed of ſeveral radii, and form a flat ſurface at the top while in flower, but when the ſeeds ripen, become concave, and drawn together: the partial umbels are ſimilar to thoſe of the general: the general involucrum conſiſts of ſeveral leaves, which are cut into long narrow ſegments: the partial involucrum is more ſimple, conſiſting of ſtrap-ſhaped leafits: the corolla is compoſed of five petals, of which the outermoſt is the largeſt; they are all white, heart-ſhaped, and bent inwards: the five filaments are capillary, and furniſhed with ſimple antheræ: the germen is ſmall, and ſupports two reflexed ſtyles, terminated by blunt ſtigmata: the ſeeds are two, egg-ſhaped, convex, rough on one ſide, covered with ſtrong hairs, and flat on the other. It grows wild in meadows and paſtures, and flowers from June till Auguſt.

This plant, in its cultivated ſtate, is the well known garden Carrot, the roots of which are commonly ſerved up at our tables. They appear by experiments to contain a large proportion of ſaccharine matter,* and conſequently afford much nouriſhment: however they are found to be very difficult of digeſtion in the ſtomach, for if eaten raw, or imperfectly boiled, they uſually paſs through the body without ſuffering any material change.[a] It is on this account, probably, that raw carrots have been given to children as a vermifuge. The expreſſed juice, or a decoction of theſe roots, has been recommended in calculous complaints, and as a gargle for infants in apthous affections, or excoriations of the mouth;[b] and a poultice of ſcraped carrot has been found an uſeful application to phagendenic ulcers, and to cancerous and putrid ſores.[c]

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* V. Marcgr. *Mem. de l'Acad. des Sc. de Berlin.* 1747. *p.* 89. See alſo *Hann. Magaz.* 1773. *n.* 75.

The ſeeds of wild Carrot, which obtain a place in the Materia Medica, have a light aromatic ſmell, and a warm acrid taſte. "Water, digeſted on the ſeeds, becomes impregnated with their ſmell, but takes up very little of their taſte: in diſtillation or evaporation, it elevates the whole of their ſmell and aromatic warmth: on diſtilling large quantities, a ſmall portion of yellowiſh eſſential oil is obtained, of a moderately pungent taſte, and ſmelling ſtrongly of the daucus. Rectified ſpirit takes up the whole of their virtue by digeſtion, and elevates little in diſtillation: the remaining extract ſmells weakly, and taſtes ſtrongly of the ſeeds."[d] Theſe ſeeds poſſeſs, though not in a very conſiderable degree, the aromatic qualities common to thoſe of moſt of the umbelliferous plants, and hence have long been deemed carminative and emmenagogue; but they are chiefly eſteemed for their diuretic powers, and for their utility in calculous and nephritic complaints,[e] in which an infuſion of three ſpoonfuls of the ſeeds in a pint of boiling water has been recommended; or the ſeeds may be fermented in malt liquor, which receives from them an agreeable flavour, reſembling that of lemon peel.[f]

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[a] "On which account I have employed them as a means of aſcertaining the time which food takes to paſs through the tract of the alimentary canal." *Withering, l. c.*

[b] V. Roſenſtein and Boſch.

[c] This uſe of the Carrot poultice was firſt diſcovered by Sulzer, (ſee *Journal de Medicine, t.* 24. *p.* 68.) ſince which its good effects are related by Gibſon (in *Med. Obſ. & Inquir. vol.* 4.) and others who have very generally found it to mitigate the pain and abate the ſtench of foul cancerous ulcers.

[d] *Lewis, M. M. p.* 271.

[e] In oppoſition to this opinion, Dr. Cullen ſays, "We have ſeen the ſemen dauci ſylveſtris employed in calculous caſes in conſiderable quantities, and for a length of time, but never found its diuretic power anywiſe remarkable." *M. M. vol. ii. p.* 552.

[f] *Lewis, l. c.*

CASSIA SENNA. SENNA, Or, EGYPTIAN CASSIA.

SYNONYMA. Senna. *Pharm. Lond. & Edinb.* Senna Alexandrina, ſive foliis acutis. *Bauh. Pin. p.* 397. *Morris Hiſt. t. ii. p.* 201. *ſect.* 2. *tab.* 24. *f.* 1. *Raii Hiſt. p.* 1742. Senna (Alexandrina) foliolis quadrijugatis lanceolatis acutis. *Miller's Dict.* Le Sené. Regnault Bot. p. 388. Ic. opt.

Senna italica, ſive foliis obtuſis. *Bauh. l. c. Park. Theat. p.* 225.

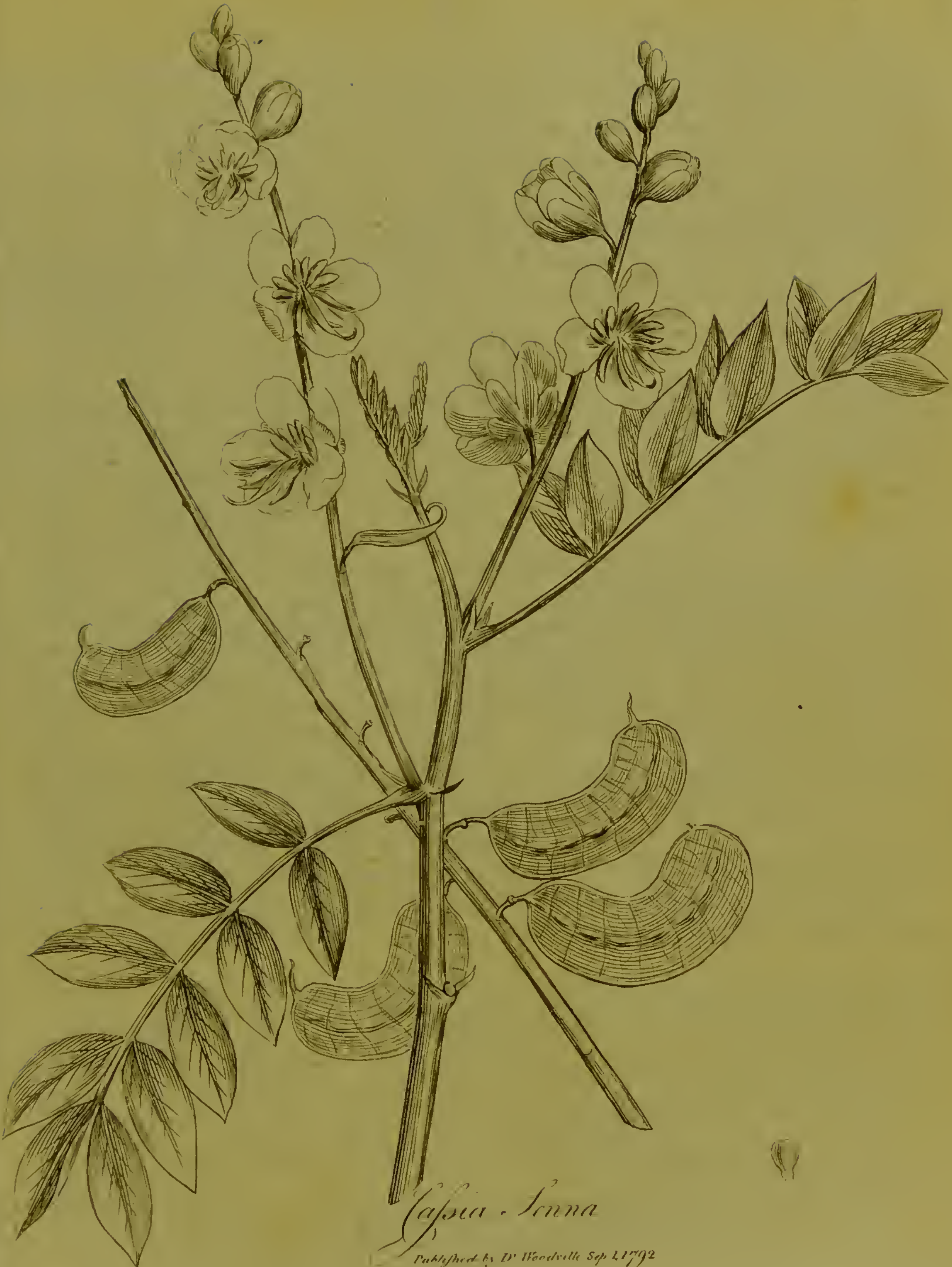
Claſs Decandria. *Ord.* Monogynia. *Lin. Gen. Plant.* 514.

Eſſ. Gen. Ch. *Cal.* 5-phyllus. *Petala* 5. *Antheræ* ſupremæ 3 ſteriles; infimæ. 3 roſtratæ. *Legumen.*

Sp. Ch. C. foliis ſejugis ſubovatis, petiolis eglandulatis.

THE root is annual: the ſtalk is ſtrong, ſmooth, branched, erect, and riſes about two feet in height: the leaves ſtand in alternate order, and at their baſe are placed narrow pointed ſtipulæ: each leaf is compoſed of ſeveral pairs of oval or elliptical pointed nerved ſeſſile pinnæ, of a yellowiſh green colour: the flowers are yellow, and produced ſucceſſively in long axillary ſpikes: the calyx conſiſts of five leafits, which are narrow, obtuſe, concave, unequal, and deciduous: the corolla is compoſed of five petals, which are roundiſh, concave, entire, and of unequal ſize: the filaments are ten, of which the three undermoſt are longer than the others, and furniſhed with large beaked curved antheræ: the germen ſtands upon a ſhort pedicle, and is long, compreſſed, and ſupplied with a ſhort ſtyle, which is turned inwards, and terminated by an obtuſe ſtigma: the ſeeds are brown, roundiſh, flat, and produced in a ſhort compreſſed curved pod, divided by tranſverſe partitions. The flowers appear in July and Auguſt.

Senna is a native of Egypt: it alſo grows in ſome parts of Arabia, eſpecially about Mocha; but as Alexandria has ever been the great mart from which it has been exported into Europe, it has long been



Caſsia Senna

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been diſtinguiſhed by the name of Alexandrian Senna, or Sena. Monſ. Blondel, who was French Conſul at ſeveral ſea ports of the Levant, informs us, that the true Senna grows only in the woods of Ethiopia and in Arabia; for that the Senna, which was brought from Saide and Tripoli was carried there by the Caravans,[a] and the negative teſtimony of Alpinus, who in his Lib. de plantis Ægypti does not notice Senna, may ſeem to ſtrengthen this opinion. But as Haſſelquiſt found this plant growing ſpontaneouſly in upper Egypt,[b] the aſſertion of Mr. Blondel is not to be implicitly received.

The Senna italica, or blunt-leaved Senna, is a variety of the Alexandrian ſpecies, which by its cultivation in the ſouth of France, (Provence) has been found to aſſume this change;[c] it is leſs purgative[d] than the pointed-leaved Senna, and is therefore to be given in larger doſes; it was employed as a cathartic by Dr. Wright at Jamaica, where it grows on the ſand banks near the ſea.[e]

Senna appears to have been cultivated in England in the time of Parkinſon[f] (1640); and Miller tells us, that by keeping theſe plants in a hot bed all the ſummer, he frequently had them in flower, but adds, it is very rarely that they perfect their ſeeds in England.[g] There can be little doubt however but that ſome of the Britiſh poſſeſſions may be found well enough adapted to the growth of this vegetable, and that the patriotic views of the Society for encouraging Arts, &c. which has offered a reward to thoſe who ſucceed in the attempt, will be ultimately accompliſhed.

The leaves of Senna, which are imported here for medicinal uſe, have a rather diſagreeable ſmell, and a ſubacrid bitteriſh nauſeous taſte: they give out their virtue both to watery and ſpirituous menſtrua, communicating to water and proof ſpirit a browniſh colour, more or leſs deep according to the proportions; to rectified ſpirit a fine green.[h]

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[a] Savary, *Dict. ii.* 1537.

[b] *Reſa, p.* 532. Bergius ſays, " Senna ſponte provenit in Ægypto ſuperiori, & colliguntur folia a ruſticis Arabibus, poſtquam ſemina matura produxit planta foliaque penitus fere exaruerunt. Hi Sennam vendunt principi (Schek) ſuo, qui illam Cairum mittit, emendam ab illo, in quem monopolium derivavit cohors Janizarorum. Hic vero Sennam poſtea vendi Europæis. Sic demum Senna ægyptiaca, revera optima, ad officinas noſtras migrat." *A. M. p.* 338. See alſo Haſſelquiſt, l. c.

[c] Vide, Gouan's Letters to Salvador Soliva in *Diſ. Sobre el Sen de Eſpanna.* Madrid. 1774.

[d] Coſte and Willemet *Eſſais ſur quelque plantes indigenes Medic.* a Nancy. p. 25.

[e] See *Lond. Med. Journ. vol.* 8.

[f] Vide, *Park. Theat. p.* 225. *cited in Hort. Kew.* [g] See *Dict.*

Senna, which is in common uſe as a purgative, was firſt known to the Arabian phyſicians, Serapion and Meſue; and the firſt of the Greeks by whom it is noticed is Actuarius, who does not mention the leaves, but ſpeaks of the fruit. Meſue likewiſe ſeems to prefer the pod to the leaves, as being a more efficacious cathartic;[i] but the fact is contrary, for it purges leſs powerfully than the leaf, though it has the advantage of ſeldom griping the bowels, and of being without that nauſeous bitterneſs which the leaves are known to poſſeſs.* How bitterneſs aids the operation of Senna is not eaſily to be underſtood; but it is obſerved by Dr. Cullen, that "when Senna was infuſed in the infuſum amarum, a leſs quantity of the Senna was neceſſary for a doſe than the ſimple infuſions of it."[k] The ſame author has remarked, "that as Senna ſeldom operates without much griping, its frequent uſe is a proof how much moſt part of practitioners are guided by imitation and habit."[l] Senna however, when infuſed in a large proportion of water, as a dram of the leaves to four ounces of water, rarely occaſions much pain of the bowels, and to thoſe who do not object to the bulkineſs of the doſe, may be found to anſwer all the purpoſes of a common cathartic. For covering the taſte of Senna, Dr. Cullen recommends coriander ſeeds; but for preventing its griping, he thinks the warmer aromatics, as cardamons or ginger, would be more effectual. The formalæ given of the Senna by the Colleges, are thoſe of an infuſion, a powder, a tincture, and an electuary. Its doſe in ſubſtance is from a ſcruple to a dram.

[h] *Lewis, M. M.*

[i] Folliculo quam foliis eſt efficacior, præſertim ſi is ex viridi nigricat, modice amarus, ſubadſtringit abſolutus, recens, in quo ſemen amplum, compreſſum; vetuſtate enim exanimatur. *Meſue D. Simp. l.* 2. *c.* 15. *p.* 65.

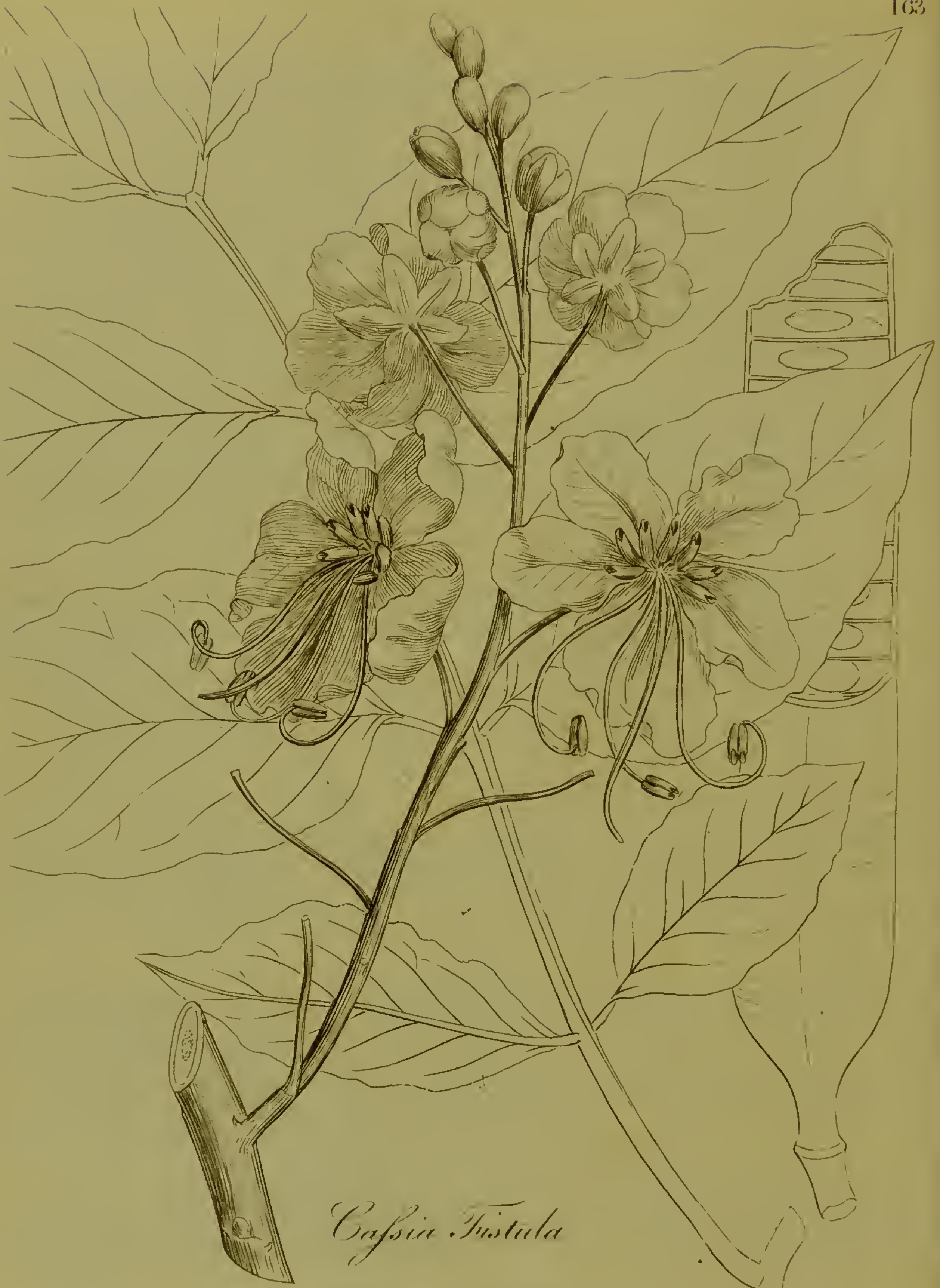
* It has been an opinion generally received, that the footſtalks of the leaves and twigs occaſioned ſevere griping; but this Bergius denies, as in a number of inſtances he found their effects uniformly ſimilar to thoſe of the leaves. *L. c.*

[k] *M. M. v. ii. p.* 521.

[l] *L. c. p.* 537.

The leaves of Colutea arboreſcens, (Common Bladder Senna) are purgative, and may be ſubſtituted for thoſe of Senna, according to Bartholin. *Med. Dan. Domeſt. p.* 126. *Ed.* 4. This is the more worthy of notice, as it is uſually cultivated for ornament in this country.

CASSIA FISTULA.



Caſsia Fiſtula

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CASSIA FISTULA. PURGING CASSIA.

SYNONYMA. Caſſia fiſtularis. *Pharm. Lond. & Edinb.* Caſſia Fiſtula Alexandrina. *Baub. Pin. p.* 403. *Raii Hiſt. p.* 1746. Commel. Hort. Amſtel. t. i. p. 215. tab. 110. Caſſia Fiſtula. *Rumph. Herb. Amb. t.* 2. *p.* 83. *tab.* 21. Caſſia Fiſtula Chaiarxambar vocata. *Alpinus de plant. Ægypti. p.* 3. *ic. p.* 7. Conna. *Hort. Malab. T. i. p.* 37. *tab.* 21. Caſſia ſolutiva. *Grac. Arom. l.* 1. *c.* 29. Tlái Xiem. *Flor. Cochin.*

Claſs Decandria. *Ord.* Monogynia. *Lin. Gen. Plant.* 514.

Eſſ. Gen. Ch. *Cal.* 5-phyllus. *Petala* 5. *Antheræ* ſupremæ 3 ſteriles; infimæ 3 roſtratæ. *Legumen.*

Sp. Ch. C. foliis quinquejugis ovatis acuminatis glabris, petiolis eglandulatis.

THIS tree frequently riſes forty feet in height, producing many ſpreading branches towards the top, and covered with browniſh bark, interſected with many cracks and furrows: the leaves are pinnated, compoſed of four to ſix pairs of pinnæ, which are ovate, pointed, undulated, nerved, of a pale green colour, and ſtand upon ſhortiſh footſtalks: the flowers are large, yellow, and placed in ſpikes upon long peduncles: the calyx conſiſts of five oblong blunt greeniſh crenulated leaves: the corolla is divided into five petals, which are unequal, ſpreading, and undulated: the filaments are ten; of theſe the three undermoſt are very long and curled inwards; the remaining ſeven exhibit only the large antheræ, which are all roſtrated, or open at the end like a bird's beak: the germen is round, curved inwardly, without any apparent ſtyle, and terminated by a ſimple ſtigma: the fruit is a cylindrical pendulous pod, from one to two feet in length; at firſt ſoft and green, afterwards it becomes brown, and laſtly black and ſhining, divided tranſverſely into numerous cells, in each of which is contained a hard round compreſſed ſeed, ſurrounded with a black pulpy matter. The flowers appear in June and July.

This tree, which is a native of both the Indies, and of Egypt, was firſt cultivated in England by Mr. Philip Miller in 1731.[a] The pods of the Eaſt India Caſſia are of leſs diameter, ſmoother, and afford a blacker, ſweeter, and more grateful pulp than thoſe which are brought from the Weſt Indies, South America, or Egypt, and are univerſally preferred. In Egypt it is the practice to pluck the Caſſia pods before they arrive at a ſtate of maturity, and to place them in a houſe, from which the external air is excluded as much as poſſible: the pods are then laid in ſtrata of half a foot in depth, between which palm leaves are interpoſed: the two following days the whole is ſprinkled with water, in order to promote its fermentation; and the fruit is ſuffered to remain in this ſituation forty days, when it is ſufficiently prepared for keeping.[b]

Thoſe pods, or canes, which are the heavieſt, and in which the ſeeds do not rattle on being ſhaken, are commonly the beſt, and contain the moſt pulp, which is the part medicinally employed, and to be obtained in the manner deſcribed in the pharmacopœias.[c]

The beſt pulp is of a bright ſhining black colour, and of a ſweet taſte, with a ſlight degree of acidity. "It diſſolves both in water and in rectified ſpirit; readily in the former, ſlowly and difficultly in the latter, and not totally in either: the part which remains undiſſolved appears to be of little or no activity."[d]

We are told by C. Bauhin, that ſome have ſuppoſed the Siliqua Ægyptiaca of Theophraſtus to be our Caſſia Fiſtula;[e] but there ſeems no evidence of its being known to the ancient Greeks; ſo that it is with more probability thought that the uſe of this, as well as of Senna, was firſt diſcovered by the Arabian phyſicians.[f]

The pulp of Caſſia has been long uſed as a laxative medicine, and being gentle in its operation, and ſeldom occaſioning griping or uneaſineſs of the bowels, has been thought well adapted to children, and to delicate or pregnant women. Adults, however, find it of little effect, unleſs taken in a very large doſe, as an ounce or more, and

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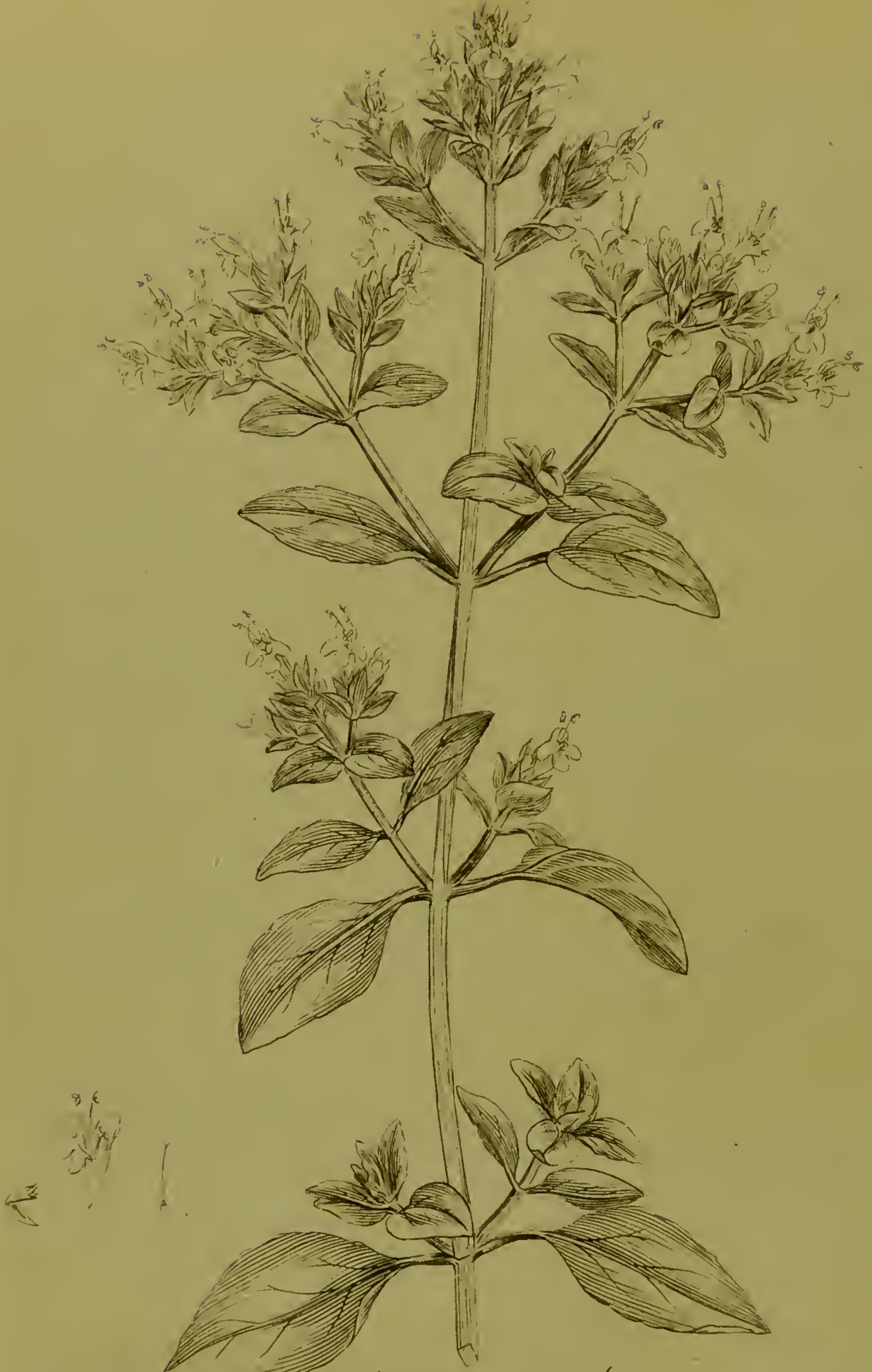
[a] Hort. Kew. [b] Vide Haſſelquiſt and Alpinus.

[c] See Pulparum extractio. [d] Lewis, M. M. p. 207. [e] Siliquam Ægyptiacam Theophraſti (1 hiſt. 18.) nonnulli cenſent. *Pinax. p.* 403.

[f] Therefore to be conſidered the Eiàrxamber of Serapion, and the Chaiarlander of Avicenna, from whom Actuarius ſeems to have his Κασσια μελαινα.

therefore



Origanum vulgare

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therefore to them this pulp is rarely given alone, but uſually conjoined with ſome of the briſker purgatives. It has been obſerved by Vallisnieri, that its purgative quality is remarkably promoted by manna; but this effect was never diſcovered in the trials made by Dr. Cullen, in whoſe opinion the Caſſia pulp is much of the ſame nature as the fructus acido dulces; and he ſays, "it would certainly be proper for our country apothecaries to know that the pulp of prunes might be employed in the place of the more expenſive and precarious Caſſia."[g]

By the uſe of Caſſia, it has been remarked, that the urine becomes of a green or blackiſh colour;[h] but Bergius relates, that a young man took an ounce three ſucceſſive mornings without producing the leaſt change in the colour of his urine.[i]

The officinal preparation of this drug is the electuarium e caſſia: it is alſo an ingredient in the electuarium e ſenna, or e. lenitivum.

[g] *M. M. vol. ii. p.* 506.

[h] By Sennertus, Löſecke, Boerhaave, Lewis, &c.

[i] M. M. p. 341. Gmelin alſo denies this effect of Caſſia. *Diſſ. de Rhab. p.* 30.

ORIGANUM VULGARE. WILD MARJORAM.

SYNONYMA. Origanum. *Pharm. Lond.* Origanum ſylveſtre. *Bauh. Pin. p.* 223. Origanum anglicum. *Gerard Emac. p.* 666. Origanum vulgare ſpontaneum. *J. Bauh. Hiſt. iii. p.* 236. *Raii Hiſt. p.* 539. *Synop. p.* 236. Origanum foliis ovatis, umbellis coloratis, ſtaminibus exſertis. *Hall. Hiſt. Stirp. Helv. n.* 233. Origanum vulgare. *Hudſ. Flor. Ang. p.* 262. *ed.* 2*d. Lightf. Flor. Scot. p.* 317. *Withering Bot. Arr. p.* 621. *Curtis Flor. Lond.* 338.

Claſs Didynamia. *Ord.* Gymnoſpermia. *Lin. Gen. Plant.* 726.

Eſſ. Gen. Ch. *Strobilus* tetragonus, ſpicatus, calyces colligens.

Sp. Ch. O. ſpicis ſubrotundis paniculatis conglomeratis, bracteis calyce longioribus ovatis.

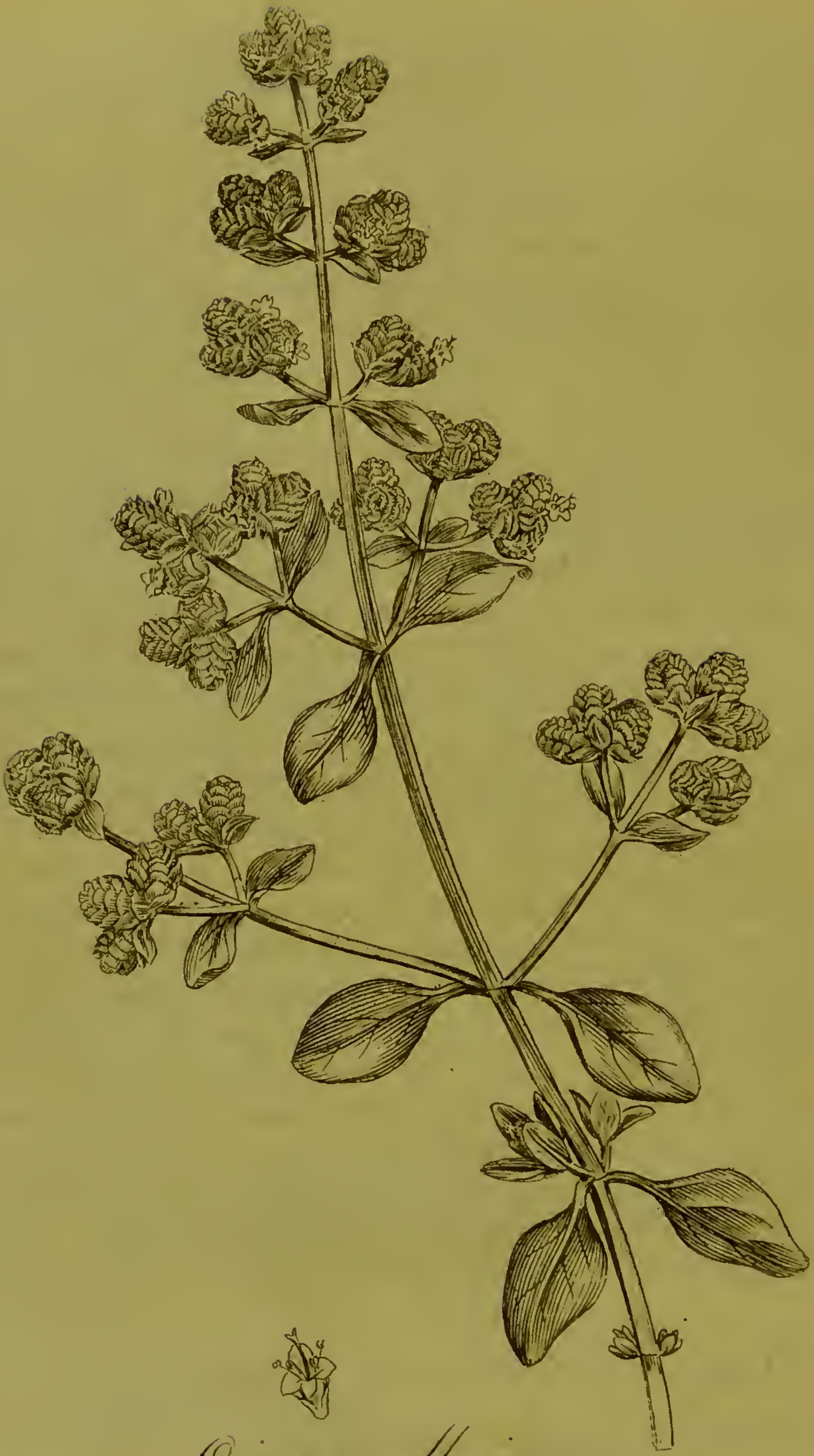
THE root is perennial, creeping, and beſet with numerous ſlender fibres: the ſtem is erect, ſquare, purpliſh, downy, producing oppoſite branches, and riſes about a foot and a half in height: the leaves ſtand upon footſtalks in pairs at the joints; and are ovate, pointed, ſomewhat indented at the edges, above ſmooth, beneath downy, and of a deep yellowiſh green colour: the flowers are numerous, terminal, of a pale purpliſh colour, and ſtand in pannicles or cluſters: the bracteæ, or floral leaves, are ovaliſh, ſeſſile, and of a browniſh red colour: the calyx is tubular, and divided at the brim into five ſegments, which are fringed at the edges: the corolla conſiſts of a funnel-ſhaped tube, longer than the calyx, divided at the limb into two lips, of which the upper is erect, bifid, obtuſe; the lower trifid, blunt, and ſpreading: the filaments are four, two long and two ſhort, of a purple colour, and furniſhed with double antheræ: the germen is divided into four parts, from the centre of which riſes a filiform ſtyle, crowned with a ſtigma, which is bifid, and reflexed: the ſeeds are four, egg-ſhaped, and lodged in the bottom of the calyx.

This plant grows wild in many parts of Britain, eſpecially on dry chalky hills,[a] or gravelly ſoils, and produces its flowers in July and Auguſt. It has an agreeable aromatic ſmell, approaching to that of marjoram, and a pungent taſte, much reſembling thyme, to which it is likewiſe thought to be more nearly allied in its medicinal qualities than to any of the other verticillatæ, and therefore deemed to be emmenagogue, tonic, ſtomachic, &c. Theſe effects, however, can only be aſcribed to the aromatic and ſtimulant powers which all the herbs of this natural order ſeem to poſſeſs in common. Diſtilled with water it yields a moderate quantity of very acrid penetrating eſſential oil, which has been much uſed for eaſing the pain of carious teeth, by dropping it on cotton, and inſerting it in the cavity of the aching tooth. The dried leaves uſed inſtead of tea, are ſaid to be exceedingly grateful. They are alſo employed in medicated baths and fomentations.

[a] Hence the derivation Origanum, ὀρȣγανος montis gaudium, quod locis montanis delectetur. Vide *Bod. in Theoph. p.* 562.

The country people uſe the tops of the plant to dye purple. *Withering, l. c.*

ORIGANUM MAJORANA.



Origanum Majorana

Publiſhed by Dr. Woodville, Septr. 1. 1792

ORIGANUM MAJORANA. SWEET MARJORAM.

SYNONYMA. Majorana. *Pharm. Lond. & Edinb.* Majorana vulgaris. *Baub. Pin. p.* 224. *Raii Hiſt. p.* 538. Majorana vulgaris æſtiva. *Park. Theat. p.* 11. Majorana major. *Gerard Emac. p.* 664.

Claſs Didynamia. *Ord.* Gymnoſpermia. *Lin. Gen. Plant.* 726.

Eſſ. Gen. Ch. *Strobilus* tetragonus, ſpicatus, calyces colligens.

Sp. Ch. O. foliis ovatis obtuſis, ſpicis ſubrotundis compactis pubeſcentibus.

THE root is perennial, brown, and furniſhed with many long tough fibres: the ſtalks are numerous, woody, branched, ſquare, and riſe a foot and an half in height: the leaves are egg-ſhaped, obtuſe, downy, entire, of a pale green colour, and ſtand in pairs upon footſtalks: the flowers are ſmall, white, and appear ſucceſſively between the bracteal leaves, which are numerous, and form round compact terminal ſpikes: the calyx is tubular, and divided at the brim into five pointed ſegments: the corolla conſiſts of a funnel-ſhaped tube, divided at the limb into two lips, of which the uppermoſt is erect and roundiſh; the undermoſt is cut into three pointed ſegments: the other parts of fructification reſemble thoſe of O. vulgare. The flowers appear in Auguſt.

This plant is thought to be the Σαμψυχον or Amaracus of the ancients:[a] it has been long cultivated in our gardens, and in frequent uſe for culinary purpoſes; but the place of which it is a native has not yet been made known.

The leaves and tops of Marjoram have a pleaſant ſmell, and a moderately warm aromatic bitteriſh taſte. They yield their virtues both to aqueous and ſpirituous liquors by infuſion, and to water in diſtillation, affording alſo a conſiderable quantity of eſſential oil, amounting, according to Beaumé, to fifteen ounces from one hundred and fifty pounds of the recent plant. This oil, on being long kept, aſſumes a ſolid form.

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[a] The Amaracus is noticed both by Virgil and Catullus:

——— ubi mollis amaracus illum
Floribus et dulci aſpirans complectitur umbrâ. Æn. *lib. i. v.* 698.

Cinge tempora floribus
Suave olentis amaraci. *Juliæ et Manlii Epithal.*

The medicinal qualities of this plant agree with thoſe of its congener, Wild Marjoram; but being much more fragrant it is deemed to be more cephalic, and better adapted to thoſe complaints known by the name of nervous; and may be therefore employed with the ſame intentions as lavender. It is directed in the compoſition of the pulvis ſternutatorius by both Pharmacopœias, with a view to the agreeable odour which it diffuſes to the aſarabacca rather than to its errhine power, which is very inconſiderable.

In its recent ſtate, we are told, that it has been ſucceſsfully applied to ſcirrhous tumours of the breaſts.[b]

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[b] Cohauſen in *Comm. Nor. a.* 1742. *p.* 151.

TAMARINDUS INDICA. TAMARIND TREE.

SYNONYMA. Tamarindus. *Pharm. Lond. & Edinb. Gerard Emac. p.* 1607. *Park. Theat. p.* 217. *Pluck. tab.* 64. *fig.* 4. *Rumph. Herb. Amb. p.* 90. *tab.* 23. Siliqua arabica, quæ Tamarindus. *Bauh. Pin. p.* 403. Balam Pulli. *Hort. Malab. tom. i. p.* 39. *tab.* 23. Tamarindus indica. *Jacquin, Pl. Americ. p.* 10. *tab.* 10. *ed.* 2. *pict. p.* 11. *t.* 13. Conf. *Sloane's Jamaica, vol. ii. p.* 45. *Browne's Jamaica, p.* 125. *Hughes's Barbad. p.* 189. *Long's Jamaica, vol. iii. p.* 729. *Swartz. Obſ. Botan. p.* 25. *Cây Me.* Flor. Cochin. p. 403.

Claſs Monadelphia. *Ord.* Triandria. *Schreb. Gen. Plant. p.* 450.

Eſſ. Gen. Ch. Cal. 4-partitus. *Petala* 3. *Nectarium* ſetis 2 brevibus ſub filamentis. *Legumen* pulpoſum.

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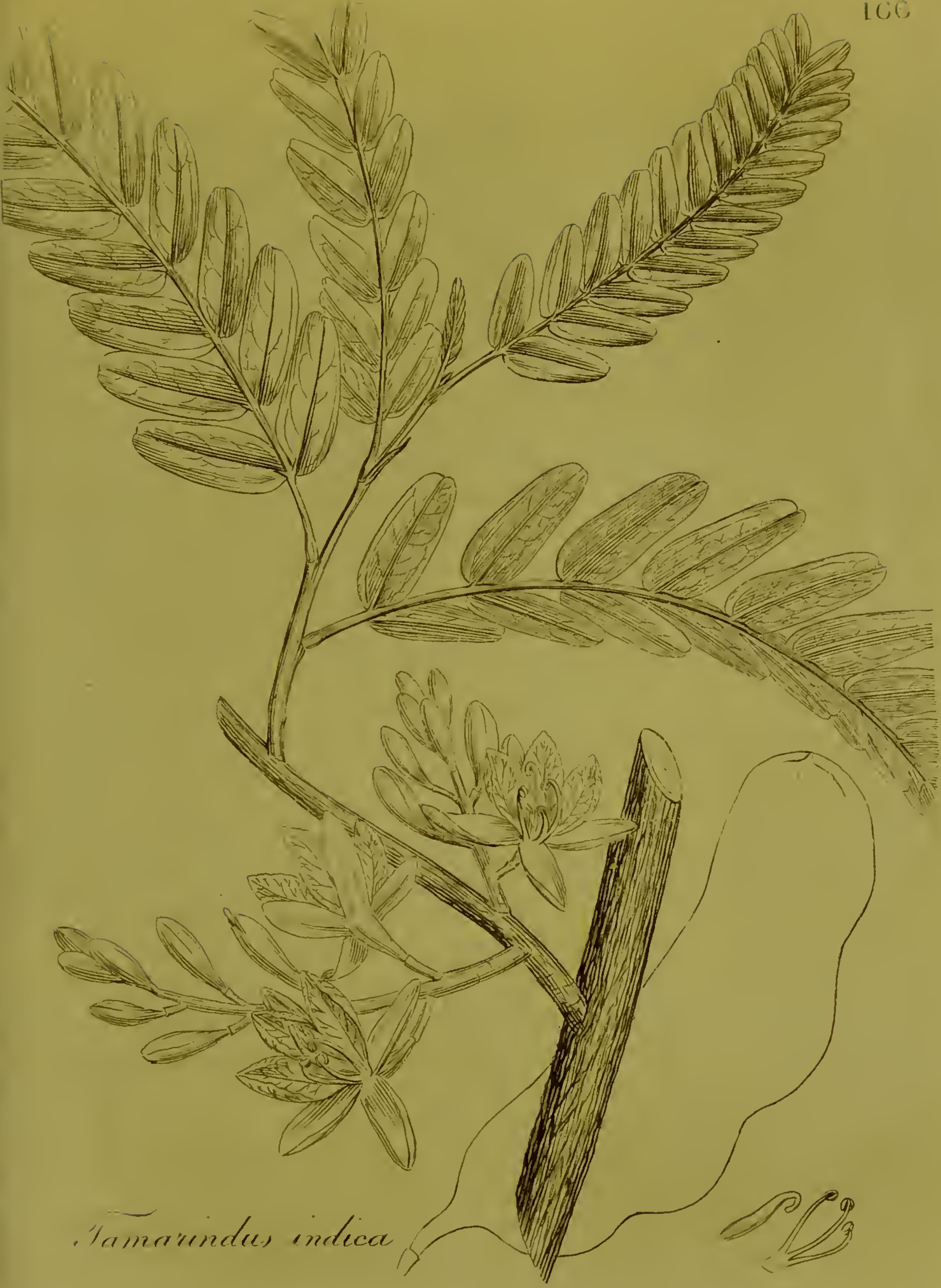

Tamarindus indica

Published by Dr Woodville Octr 1. 1792.

THIS tree riſes to a great height, ſending off numerous large branches, which ſpread to a conſiderable extent, and have a beautiful appearance: the trunk is erect, thick, and covered with rough bark of a greyiſh or aſh-colour: the leaves are pinnated, alternate, conſiſting of ſeveral pairs (about 14) of ſmall pinnæ, which are oppoſite, oblong, obtuſe, entire, ſmooth, of a yellowiſh green colour, and ſtand upon very ſhort footſtalks: the flowers approach to the papilionaceous kind, and are produced in racemi or lateral cluſters: the calyx conſiſts of four deciduous leaves, which are patent or reflexed, oblong, or rather ovate, entire, ſmooth, nearly equal in ſize, and ſtraw-coloured or yellowiſh: the petals are three, ovate, concave, acute, indented, and plaited at the edges, about the length of the calyx, and of a yellowiſh colour, beautifully variegated with red veins: the peduncles are about half an inch long, and each furniſhed with a joint, at which the flower turns inwards: the filaments are commonly three, but in ſome flowers we have found four, in others only two; they are purple, united at the baſe, and furniſhed with incumbent browniſh antheræ: the germen is oblong, compreſſed, incurved, ſtanding upon a ſhort pedicle: the ſtyle is tapering, ſomewhat longer than the filaments, and terminated by an obtuſe ſtigma: the fruit is a pod of a roundiſh compreſſed form, from three to five inches long, containing two, three, or four flattiſh angular ſhining ſeeds, lodged in a dark pulpy matter, and covered by ſeveral rough longitudinal fibres. The flowers, according to Jacquin, appear in October and November.

The generic character of Tamarindus is wholly founded upon this ſpecies, as no other of the ſame family has hitherto been diſcovered.[a] Though Linnæus in his laſt edition of the Genera plantarum has followed Jacquin's deſcription of the Tamarindus, in obſerving that the filaments are united at the baſe, a circumſtance which ought to have placed it in the claſs monadelphia, yet notwithſtanding this, they neither thought proper to remove it from the claſs Triandria, where it alſo has been ſince retained in Murray's edition of the Syſtema Vegetabilium; and is conſequently thus claſſed by us in the ſyſtematic arrangement prefixed to the firſt volume of this work. Since that time however, we have had an opportunity of examining the recent flower of the Tamarind, from which we have no doubt of its having the true character of the monadelphia claſs, in which we have now placed it, and for which we have lately had the authority of Schreber,[‖] and that of De Loureiro.[†]

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[a] Conſiderable difference in the ſhape of the pod and ſweetneſs of the pulp has been obſerved; but this variety depends upon the locality of the tree.

This tree, which appears upon various authorities, to be a native of both Indies,[b] America, Egypt, and Arabia, was cultivated in Britain previous to the year 1633; for in Johnſon's edition of Gerard we are told, that the figure of the Tamarind "*is of a plant ſome ſix months old, ariſen of a ſeed: and ſuch by ſowing of ſeeds I have ſeene growing in the garden of my deceaſed friend Mr. Tuggy.*"[c] Miller informs us, that Tamarind plants, "if rightly managed, will grow very faſt;" adding, "for I have had them upwards of three feet high in one ſummer, from ſeed, and have had two plants, which produced flowers the ſame ſeaſon they were ſown; but this was accidental, for none of the older plants have produced any flowers, although I have ſeveral plants of different ages, ſome of which are ſixteen or eighteen years old, and about twelve feet high, with large ſpreading tops."[d] To this it may be added, that a healthy tree of this ſpecies, now in the Royal Botanic Garden at Kew, much larger and older than thoſe mentioned by Miller, has not been known to flower for ſeveral years before the preſent ſummer; this fortunately enables us to publiſh a perfect ſpecimen of it repreſented by the annexed plate, which will be found to correct the figure of the Tamarind, given by the juſtly celebrated botaniſt Jacquin.

The pulp of the Tamarind, with the ſeeds, connected together by numerous tough ſtrings or fibres, are brought to us freed from the outer ſhell, and commonly preſerved in ſyrup. According to Long, Tamarinds are prepared for exportation at Jamaica, in the following manner. "The fruit or pods are gathered (in June, July, and Auguſt) when full ripe, which is known by their fragility or eaſy breaking on

[‖] V. Genera plant. Claſs Monadelph. Ord. Triand. p. 450.

[†] He ſays, A Claſſe Triandria ad Monadelphiam tranſtuli hoc genus non ſolum propriâ obſervatione fretus, ſed etiam ab ipſo Linnæo monitus filamenta habere infernè connata. *Flor. Cochin. p.* 403.

In order to make this more evident, we have diſplayed the filaments as they appeared in our ſpecimen. The rudiments of other filaments probably conſtituted that part of the generic character which has not been noticed in our deſcription.

[b] Sir Hans Sloane however ſays, "theſe trees were ſtrangers in the Weſt Indies, and planted firſt at Acapulco." *L. c.* [c] *L. c. p.* 1608. [d] See *Dict.*

ſmall preſſure between the finger and thumb. The fruit, taken out of the pod, and cleared from the ſhelly fragments, is placed in layers in a caſk, and boiling ſyrup, juſt before it begins to granulate, is poured in, till the caſk is filled: the ſyrup pervades every part quite down to the bottom, and when cool the caſk is headed for ſale."[e] He obſerves, that the better mode of preſerving this fruit is with ſugar, well clarified with eggs, till a tranſparent ſyrup is formed, which gives the fruit a much pleaſanter flavour: but as a principal medicinal purpoſe of the pulp depends upon its acidity, which is thus counteracted by the admixture of ſugar, it would therefore be of more utility if always imported here in the pods.[f] The fruit produced in the Eaſt Indies is more eſteemed than that of the Weſt, and eaſily to be diſtinguiſhed by the greater length of the pods, and the pulp being dryer and of a darker colour.

This fruit, the uſe of which was firſt learned of the Arabians, contains a larger proportion of acid, with the ſaccharine matter, than is uſually found in the *fructus acido-dulces*, and is therefore not only employed as a laxative, but alſo for abating thirſt and heat in various inflammatory complaints, and for correcting putrid diſorders, eſpecially thoſe of a bilious kind; in which the cathartic, antiſeptic, and refrigerant qualities of the fruit have been found equally uſeful. When intended merely as a laxative it may be of advantage to join it with manna, or purgatives of a ſweet kind, by which its uſe is rendered ſafer and more effectual. Three drams of the pulp are uſually ſufficient to open the body; but to prove moderately cathartic, one or two ounces are required. It is an ingredient in electuarium e caſſia, and el. e senna, or lenitive electuary.

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[e] *L. c.*

[f] *Cullen*, *M. M. vol. ii. p.* 507.

"Tournefort relates, that an eſſential ſalt may be obtained from Tamarinds, by diſſolving the pulp in water, and ſetting the filtered ſolution, with ſome oil upon the ſurface, in a cellar for ſeveral months; that the ſalt is of a ſouriſh taſte, and difficultly diſſoluble in water; and that a like ſalt is ſometimes found alſo naturally concreted on the branches of the tree. The ſalt, as Beaumé obſerves, may be obtained more expeditiouſly, by clarifying the decoction of the Tamarinds with whites of eggs, then filtering it, and evaporating it to a proper conſiſtence, and ſetting it to cool: the ſalt ſhoots into cryſtals of a brown colour, and very acid taſte; but in diſſolving and cryſtalizing them again, or barely waſhing them with water, they loſe almoſt all their acidity, the acid principle of the Tamarinds ſeeming not to be truly cryſtallizable." Vide *Lewis*, *M. M. p.* 633.

GLYCYRRHIZA GLABRA. COMMON LIQUORICE.

SYNONYMA. Glycyrrhiza. *Pharm. Lond. & Edinb.* Glycyrrhiza vulgaris. *Gerard. Emac. p.* 1302. *Raii Hiſt. p.* 910. *Synop. p.* 324. Glycyrrhiza ſiliquoſa vulgaris. *Park. Theat. p.* 1098. Glycyrrhiza radice repente, &c. *J. Bauh. Hiſt. ii. p.* 328. Glycyrrhiza ſiliquoſa vel germanica. *Bauh. Pin. p.* 352. *Hiſt. Oxon. v. ii. p.* 89. Conf. Pallas. *Reiſe durchs Ruſs. Reich. T. i. p.* 498. *n.* 120. Γλυκυρριζα et Γλυκυρριξα *Græcorum.*

Claſs Diadelphia. *Ord.* Decandria. *Lin. Gen. Plant.* 882.

Eſſ. Gen. Ch. *Cal.* 2-labiatus : $\frac{1}{3}$. *Legumen* ovatum, compreſſum.

Sp. Ch. G. leguminibus glabris, ſtipulis nullis, foliolo impari petiolato.

THE root is perennial, long, round, ſucculent, tough, running to a conſiderable extent, externally brown, internally yellow, and of a ſweet taſte : the ſtalks are erect, ſtrong, herbaceous, ſtriated, garniſhed with few branches, and uſually riſe four or five feet in height : the leaves are pinnated, alternate, compoſed of ſeveral pairs of pinnæ, with an odd one at the end : the leafits are ovate, blunt, veined, of a pale green colour, and ſtand upon ſhort footſtalks : the flowers are of the papilionaceous kind, of a purpliſh colour, and appear in long ſpikes ariſing from the axillæ of the leaves : the calyx is perſiſtent, tubular, cut obliquely into two lips, and divided into narrow pointed ſegments : the corolla conſiſts of a *vexillum*, which is erect, lance-ſhaped, concave, obtuſe ; two *alæ*, which are oblong, obtuſe, and larger than the *carina*, which is about the length of the calyx : the filaments are ten, nine of which are joined at the baſe, and all furniſhed with ſimple roundiſh antheræ : the germen is ſhorter than the calyx, and is ſupplied with a tapering ſtyle, terminated by a blunt ſtigma : the ſeeds are ſmall, kidney-ſhaped, and produced in a pod, which is oblong, compreſſed, pointed, one-celled. The flowers appear in Auguſt.

Liquorice is a native of the South of Europe : it appears to have been cultivated in Britain in the time of Turner.[a] The chief places

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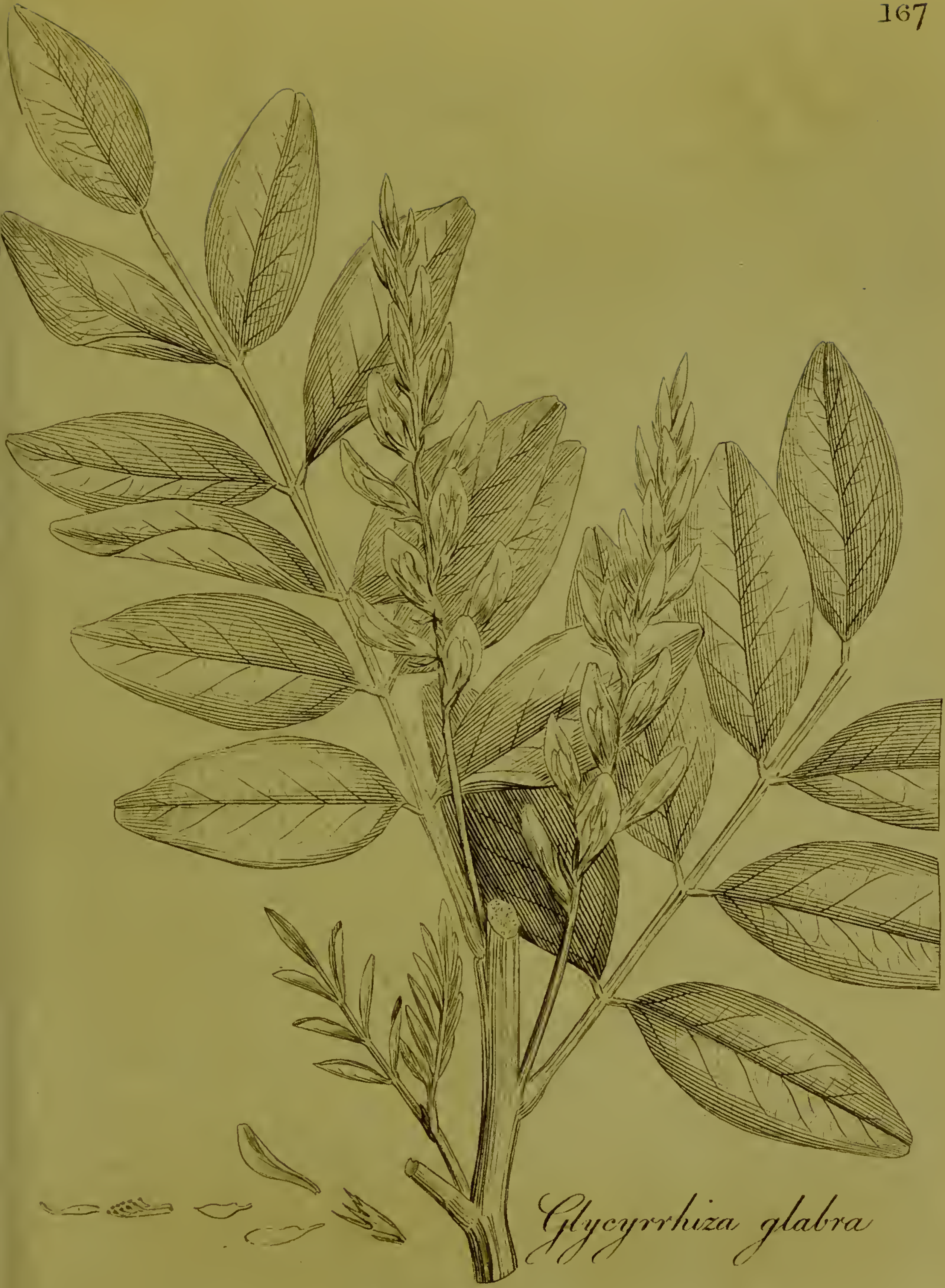
[a] Vide *Tourn. Herb. part.* 2. *fol.* 12. publiſhed in 1562.



Glycyrrhiza glabra

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purpoſes, it has been long very generally cultivated in gardens: it ſhews the ſame propenſity to forming bulbs inſtead of flowers as the A. Scorodopraſum or Rocambole Garlick, which it alſo reſembles in other reſpects.

Every part of the plant, but more eſpecially the root, has a pungent acrimonious taſte, and a peculiarly offenſive ſtrong ſmell. This odour is extremely penetrating and diffuſive, for on the root being taken into the ſtomach, the alliaceous ſcent impregnates the whole ſyſtem, and is diſcoverable in the various excretions.[b] This volatile matter is, in part at leaſt, an eſſential oil, which may be obtained in diſtillation in the ordinary manner, and like the oils of many of the ſiliquoſe plants, ſinks in water. Applied to the ſkin, Garlick produces inflammation, and frequently veſicates the part. "On drying, this root loſes almoſt nine parts in fifteen, without ſuffering any conſiderable loſs of its taſte or ſmell; hence ſix grains dried are ſuppoſed to be equivalent to fifteen grains of the freſh root."[c]

Garlick is generically allied to the onion, from which it ſeems only to differ in being more powerful in its effects, and in its active matter, being in a more fixed ſtate; by ſtimulating the ſtomach they both favour digeſtion, and as the ſtimulus is readily diffuſed over the ſyſtem, they may therefore be conſidered as uſeful condiments with the food of phlegmatic people, or thoſe whoſe circulation is languid, and ſecretions interrupted; but with thoſe ſubject to inflammatory complaints, or where great irritability prevails, theſe roots, in their acrid ſtate, may prove very hurtful.

The medicinal uſes of Garlick are various: it has been long in eſtimation as an expectorant in pituitous aſthmas, and other pulmonary affections, unattended with inflammation.[d] Its utility as a diuretic in dropſies, is alſo atteſted by unqueſtionable authorities;[e]

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[b] As in the urine, perſpiration, milk; and according to Bennet, the diſcharge of ulcers becomes imbued with this odour very ſoon after the Garlick has been taken into the ſtomach. Vide *Tabidorum theat. exerc.* 29. *p.* 81. On being applied to the feet, the alliaceous taſte has been produced in the mouth. Vide *Hall. opuſc. bot. p.* 332.

[c] *Lewis, M. M. p.* 33.

[d] Dioſcorides mentions its uſe in inveterate coughs. *M. M. l.* 2. *c.* 182. Celſus employed it mixed with honey in theſe complaints. *Lib.* 4. *c.* 4. *p.* 199. *ed. Kraus.* Vide *Mead. Monit. et præc. p.* 56. Roſenſtein *Huſ-och Reſe-apot. p.* 71. & 87. He recommends the Garlick to be boiled in milk, a pint of which is to be taken night and morning. [e] See the caſes related by Foreſtus, (*Obſ. lib.* 9. *obſ.* 27). Bartholinus, (*Hiſt. Anat. Cent.* 2. *hiſt.* 74. Sydenham, (*Oper. p.* 500).

and its febriſuge power has not only been experienced in preventing the paroxyſms of intermittents,[f] but even in ſubduing the plague:[g]

Another virtue aſcribed to Garlick is that of an anthelmintic:[h] it has likewiſe been found of great advantage in ſcorbutic caſes,[i] and in calculous diſorders, acting in theſe not only as a diuretic, but in ſeveral inſtances manifeſting a lithontriptic power.[k] That the juice of alliaceous plants in general has conſiderable effects upon human calculi, is to be inferred by the experiments of Lobb;[l] and we are abundantly warranted in aſſerting, that by a decoction of the beards of leeks, taken liberally, and its uſe perſevered in for a length of time, has been found remarkably ſucceſsful in calculous and gravelly complaints.[m]

The penetrating and diffuſive acrimony of Garlick renders its external application uſeful in many diſorders, as a rubifacient, and more eſpecially as applied to the ſoles of the feet, to cauſe a revulſion from the head or breaſt, as was ſucceſsfully practiſed and recommended by Sydenham.[n] Garlick has alſo been variouſly employed externally to tumors and cutaneous diſeaſes; and in certain caſes of deafneſs a clove or ſmall bulb of this root, wrapt in gauze or muſlin, and in-

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[f] Vide Celſus *l. c. p.* 142. De Hæn *Rat. Med. P. ii. p.* 57. *ſq.* Roſenſtein *Barns ſjukd. p.* 317. Bergius. Vide *M.M. p.* 255. where he ſays, "In febribus quoque autumnalibus repullulantibus præclara identidem præſtat. Vidi plures eodem curatos, etiam quos quartana vexaverat. Incipiendum a bulbulo unico mane & veſperi, ſed quotidie unus bulbulus ſuperaddendus, uſquedum 4 vel 5 bulbulos ſumſerit æger qualibet vice. Si febris tunc evanuit, diminuenda erit doſis, & ſufficit poſtea ſumere unicum, vel etiam binos bulbulos, mane & veſperi, per plures ſeptimanas.

[g] For this purpoſe it is to be given in ſuch a way as to excite a copious diaphoreſis. See the authors cited by Zorn. *Botan. Med. p.* 40. Chenot (*De peſte. p.* 108. *ſq.* and others.

[h] By Hoffman, Roſenſtein, Taube, and others.

[i] See Lauremberg App. plant. l. 1. p. 22. Lind on ſcurvy, p. 182. 188. 224.

[k] Vide Hoyer *Ephem. nat. cur. Cent. i p.* 126. Goetz *Act. nat. cur. vol.* 2. *p.* 434. Möhring *Commerc. Nor.* 1735. 220.

[l] De Diſſol. calc. cap. 10.

[m] A boy, ſix or ſeven years old, had for a conſiderable time ſuffered by a calculus in the urinary bladder, which had been diſcovered on ſounding; he had recourſe to this decoction, which very ſoon relieved the pain; after which his urine became extremely turbid, and conſtantly depoſited a copious clay-like ſediment for ſeveral weeks, when it reſumed its natural appearance, and the boy has ever ſince been free from complaint. Another caſe ſimilar to this has alſo been reported to us, of the truth of which we have not a doubt.

[n] Eſpecially in the confluent ſmall-pox, about the eighth day. *Epiſt. de variolis conf.*

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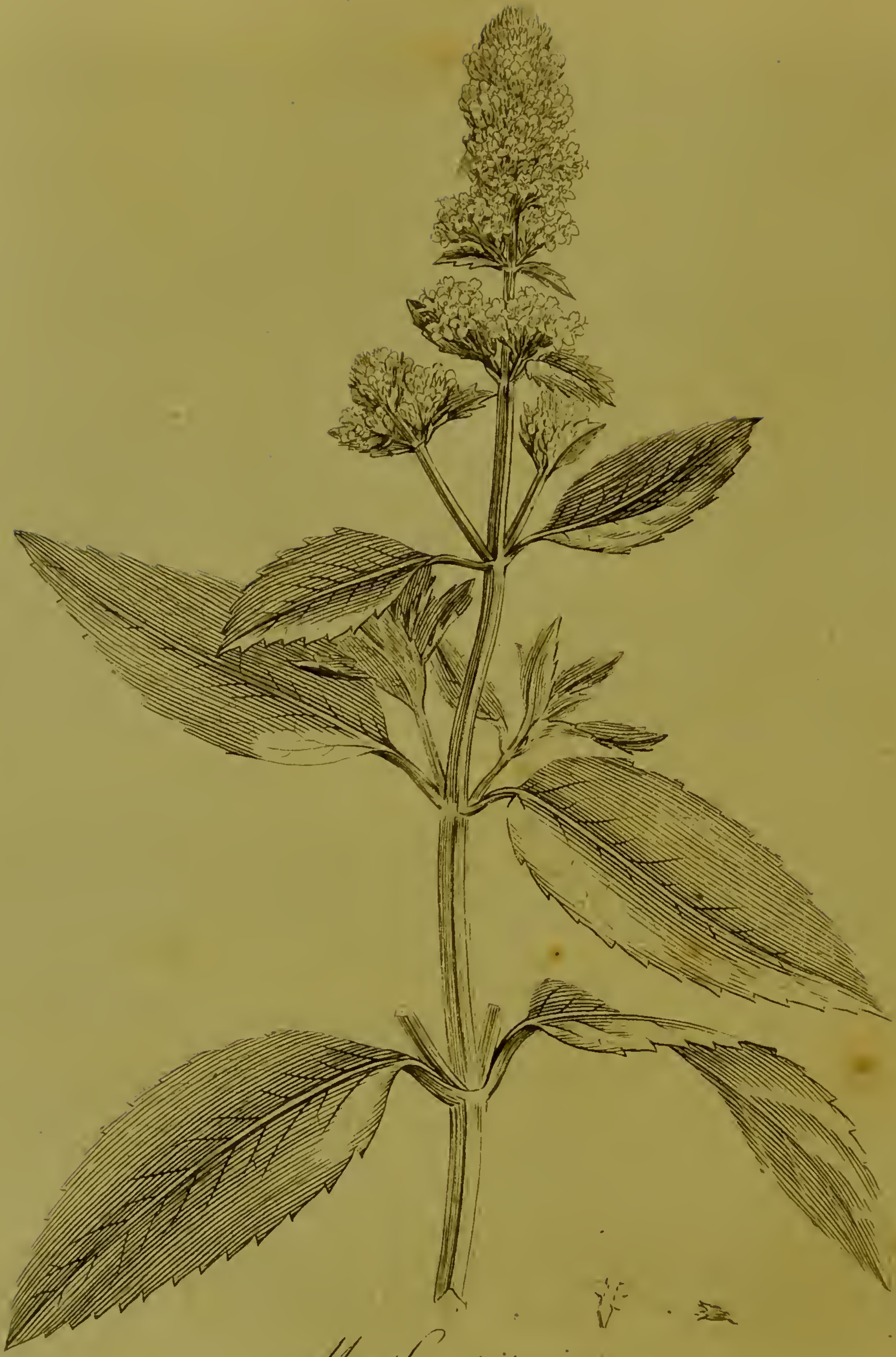

Mentha piperita

Publiſhed by Dr. Woodville Octr. 1. 1792.

troduced into the meatus auditorius, has been found an efficacious remedy.°

Garlick may be adminiſtered in different forms; ſwallowing the clove entire, after being dipped in oil, is recommended as the moſt effectual, or where this cannot be done, by cutting it into pieces without bruiſing it, may be found to anſwer equally well, producing thereby no uneaſineſs in the fauces. On being beaten up, and formed into pills, the active parts of this medicine ſoon evaporate: this we notice on the authority of Dr. Cullen, who thinks that Lewis has fallen into a groſs error, in ſuppoſing dried Garlic more active than freſh.

The ſyrup and oxymel of Garlick, which formerly had a place in the Britiſh Pharmacopœias, are now expunged.

° Bergius for this purpoſe recommends the juice of Garlick dropped on cotton. *l. c.*

MENTHA PIPERITA. PEPPER-MINT.

SYNONYMA. Mentha piperitis. *Pharm. Lond. & Edinb.* Mentha ſpicis brevioribus & habitioribus, foliis menthæ fuſcæ, ſapore fervido piperis. *Raii Synop. p.* 234. *Hiſt. v. iii. p.* 284. Mentha piperita. *Hudſon Flor. Ang. p.* 251. *Withering Bot. Arrang. p.* 599. *Relhan Flor. Cantab. p.* 223. *Icon. V. Knigge Diſſ. de mentha piperitide.*

Claſs Didynamia. *Ord.* Gymnoſpermia. *Lin. Gen. Plant.* 713.

Eſſ. Gen. Ch. *Corolla* ſubæqualis, 4-fida, lacinia latiore emarginata. *Stamina* erecta, diſtantia.

Sp. Ch. M. flor. capitatis, fol. ovatis petiolatis, ſtaminibus corolla brevioribus.

THE root is perennial, creeping, and furniſhed with many ſmall fibres: the ſtems are erect, ſquare, jointed, ſtriated, ſomewhat branched towards the top, and riſe about two feet in height: the leaves are egg-ſhaped, ſerrated, pointed, nerved, of a dark green colour, and ſtand in pairs upon footſtalks: the flowers are ſmall, purple, and produced in terminal ſpikes, ſeparated into cluſters: the calyx is tubular, permanent, reddiſh, ſtriated, hairy, and divided at the brim into five ſmall pointed ſegments: the corolla is tubular, divided at the limb into four ſegments, of which the uppermoſt is the broadeſt, and notched at the apex: the filaments are two long and two ſhort, tapering, and furniſhed with roundiſh antheræ: the germen is divided into four parts, ſupporting a ſlender erect ſtyle, which is longer than the corolla, and terminated by a cloven expanding ſtigma: the ſeeds are four, ſmall, and lodged in the calyx. It is a native of England, affecting watery ſituations and banks of rivers, and flowers in Auguſt.

The ſpontaneous growth of this plant is ſaid to be peculiar to Britain; but as it is generally preferred to the other ſpecies of Mint, its cultivation has long been extended over Europe, and that employed here is commonly raiſed in gardens. This ſpecies has a more penetrating ſmell than any of the other mints, and a much ſtronger and warmer taſte, pungent and glowing like pepper, ſinking as it were into the tongue, and followed by a ſenſation of coldneſs.

"By maceration, or infuſion, it readily and ſtrongly impregnates both water and ſpirit with its virtue.—In diſtillation with water it yields a conſiderable quantity of eſſential oil of a pale greeniſh yellow colour, growing darker coloured by age, very light, ſubtile, poſſeſſing in a high degree the ſpecific ſmell and penetrating pungency of pepper-mint.*——Rectified ſpirit, drawn off with a gentle heat from the tincture made in that menſtruum, brings over little of the virtue of the herb, nearly all its pungency and warmth remaining concentrated in the extract." [a]——

Its ſtomachic, antiſpaſmodic, and carminative qualities renders it uſeful in flatulent colics, hyſterical affections, retchings, and other dyſpeptic ſymptoms, acting as a cordial, and often producing immediate relief. Its officinal preparations are an eſſential oil, a ſimple water, and a ſpirit.

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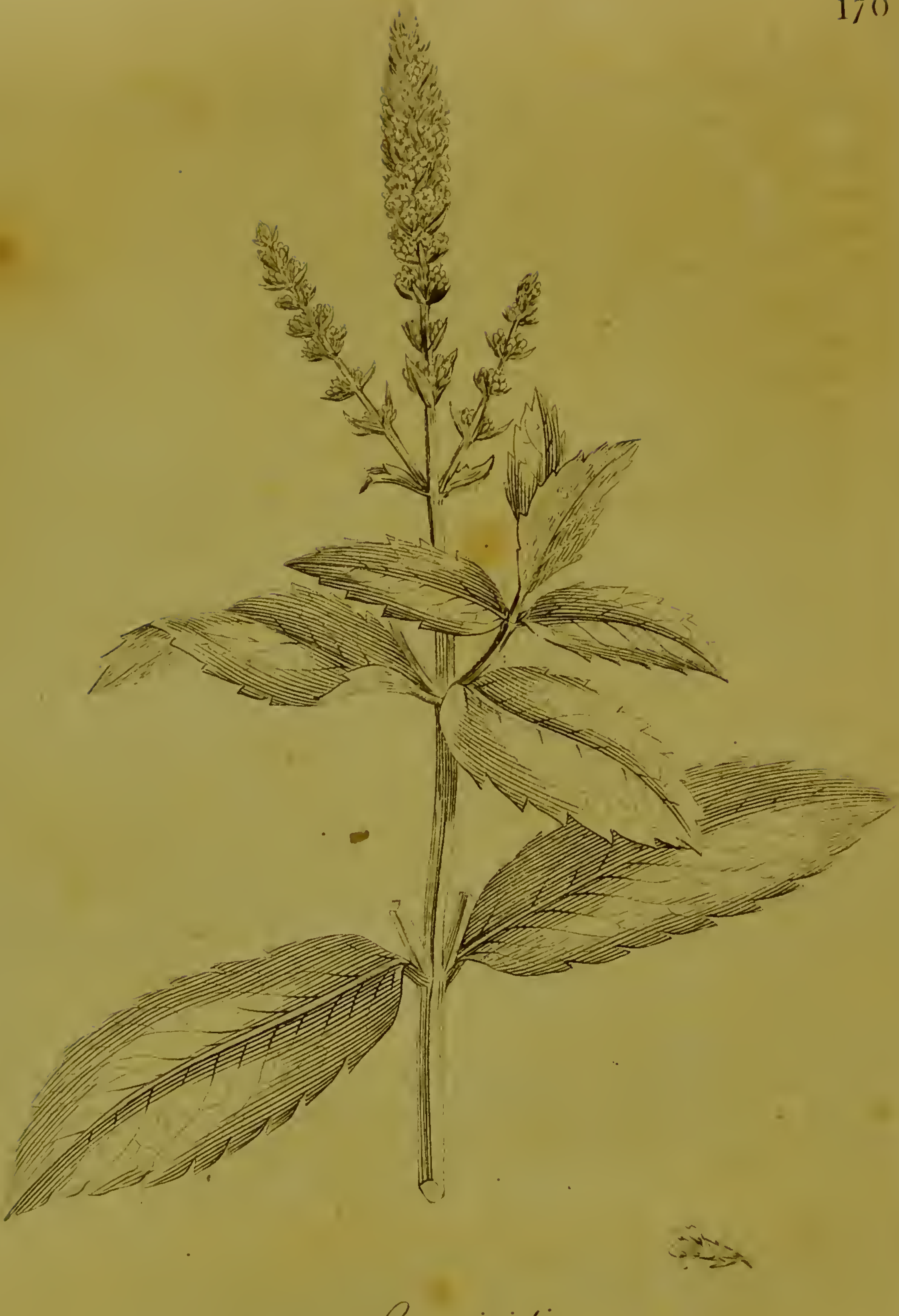
* Dr. Cullen obſerves, that "rectification is particularly neceſſary and proper for this eſſential oil. What has been called eſſence of pepper-mint, ſeems to me to be no other than the rectified oil diſſolved in ſpirit of wine." Vide *M. M. vol. ii. p.* 150.

[a] *Lewis*, *M. M. p.* 422.

We have already noticed that this plant yields camphor. See *Gaub. Adverſ. p.* 99. *ſqq.*

MENTHA VIRIDIS



Mentha viridis

Published by Dr. Woodville, Octr. 1.1792.

MENTHA VIRIDIS. SPEAR-MINT.

SYNONYMA. Mentha ſativa. *Pharm. Lond. & Edinb.* Mentha anguſtifolia ſpicata. *Bauh. Pin. p.* 227. *Raii Hiſt. p.* 532. Mentha anguſtifolia ſpicata, glabra, folio rugoſiore, odore graviore. *Raii Synop. p.* 233. Mentha romana. *Gerard. Emac. p.* 680. Mentha romana anguſtifolia, ſive Cardiaca. *Park. Theat. p.* 31. Mentha foliis elliptico-lanceolatis, ſpicis cylindricis glaberrimis. *Hall. Stirp. Helv. n.* 229. Mentha ſpicata. *Hudſon. Flor. Ang. p.* 221. Mentha viridis. *Withering. Bot. Arrang. p.* 597.

Claſs Didynamia. *Ord.* Gymnoſpermia. *Lin. Gen. Plant.* 713.

Eſſ. Gen. Ch. *Cor.* ſubæqualis, 4-fida: lacinia latiore emarginata. *Stamina* erecta diſtantia.

Sp. Ch. M. ſpicis oblongis, foliis lanceolatis nudis ſerratis ſeſſilibus, ſtaminibus corolla longioribus.

THE root is perennial, creeping, and beſet with numerous ſmall fibres: the ſtems are ſquare, hollow, erect, branched, and riſe above two feet in height: the leaves are large, elliptical, ſerrated, pointed, of a bright green colour, and placed in pairs cloſe to the ſtem, or upon very ſhort footſtalks: the flowers are ſmall, purpliſh, and produced in terminal ſpikes: the filaments are longer than the corolla. In other reſpects the different parts of the flower correſpond with the deſcription given of the pepper-mint. It flowers in Auguſt.

This plant grows wild in many parts of England, and was found on the banks of the Thames by Mr. Hudſon*; but it is more rarely met with in this ſtate than the preceding ſpecies. It is not ſo warm to the taſte as pepper-mint, but has a more agreeable flavour, and is therefore preferred for culinary uſes, and more generally cultivated in our gardens. Many virtues are aſcribed to mint by the ancients, but to what ſpecies the 'Ηδύοσμος & Μινθη of the Greeks[a] is to be referred, muſt ever remain uncertain: even at this time the different ſpecies of this extenſive family are not ſatisfactorily aſcertained; but, in a medical ſenſe, this is of little importance, as the virtues of all reſide in the aromatic flavour, which is common to the whole genus.

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* See *Withering*, l. c.

" On drying, the leaves loſe about three-fourths of their weight without ſuffering much loſs of their ſmell or taſte; nor is the ſmell ſoon diſſipated by moderate warmth, or impaired on keeping. Cold water, by maceration for ſix or eight hours on the dry herb, and warm water in a ſhorter time, become richly impregnated with its flavour.—By diſtillation, a pound and a half of the dry leaves communicate a ſtrong impregnation to a gallon of water: the diſtilled water proves rather more elegant if drawn from the freſh plant in the proportion of ten pints from three pounds. Along with the aqueous fluid an eſſential oil diſtils, of a pale yellowiſh colour, changing to a red, in quantity near one ounce from ten pounds of the freſh herb in flower, ſmelling and taſting ſtrongly of the mint, but ſomewhat leſs agreeable than the herb itſelf. Dry mint, digeſted in rectified ſpirit, either in the cold or with a gentle warmth, gives out readily its peculiar taſte and ſmell, without imparting the groſſer and more ungrateful matter, though the digeſtion be long continued. The tincture appears by day-light of a fine dark green, by candle-light of a dark red colour:* a tincture extracted from the remaining mint by freſh ſpirit, appears in both lights green: the colour of both tinctures changes in keeping to a brown. On gentle diſtillation, with proof ſpirit, the ſpirituous portion which riſes at firſt, diſcovers little flavour of the mint; but as ſoon as the watery part begins to diſtil, the virtues of the mint come over plentifully with it. Hence the ſpiritus

[a] Mint has not eſcaped the notice of the Latin poets:

——— ——— ——— An tibi quondam
Fœmineos artus in olentes vertere menthas
Perſephone, licuit? Ovid. Met. L. x. v. 728.

By Martial it is called " ructatrix Mentha." *Epigr. L.* 10. 48.

* Dr. Withering ſays, " the fact is, that a ſmall quantity of this tincture is green either by day-light or by candle-light, but a large quantity of it ſeems impervious to common day-light: however, when held between the eye and a candle, or between the eye and the ſun, it appears red; ſo that if put into a flat bottle it appears green, but when viewed edgeways, red. *L. c.*

menthæ ſativæ. P. L. which is prepared by drawing off a gallon of proof ſpirit from a pound and a half of the dried plant, proves ſtrongly impregnated with the mint."[b]

To Spear-mint are to be aſcribed the ſame medicinal qualities which we have noticed of Pepper-mint*; but the different preparations of the former, though more pleaſant, are perhaps leſs efficacious. "It contains much eſſential oil, but of an odour ſomewhat leſs agreeable than that of lavender or marjoram. It is therefore leſs employed as a cephalic; but it acts very powerfully on the parts to which it is immediately applied, and therefore conſiderably on the ſtomach, invigorating all its functions. It acts eſpecially as an antiſpaſmodic, and therefore relieves pains and cholic depending upon ſpaſm. It will alſo ſtop vomiting, depending upon ſuch a cauſe; but there are many caſes of vomiting in which it is of no ſervice: and in theſe caſes, anywiſe depending upon inflammatory irritation in the ſtomach itſelf, or in other parts of the body, it aggravates the diſeaſe, and increaſes the vomiting. Practitioners have thought, and I think juſtly, that the infuſion of mint in warm water, agrees better with the ſtomach than the diſtilled water, which is often ſomewhat empyreumatic."[c]

Lewis obſerves,[d] "that it is ſaid by ſome to prevent the coagulation of milk; and hence it has been recommended to be uſed along with milk diets, and even in cataplaſms and fomentations for reſolving coagulated milk in the breaſts: upon experiment, the curd of milk, digeſted in a ſtrong infuſion of mint, could not be perceived to be any otherwiſe affected than by common water; but milk, in which mint leaves were ſet to macerate, did not coagulate near ſo ſoon as an equal quantity of the ſame milk kept by itſelf."[e]

The officinal preparations of Spear-mint are an eſſential oil, a conſerve, a ſimple water, and a ſpirit.

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* In proof of the emmenagogue power of mint, Linnæus informs us, that a woman, by the frequent uſe of it, became ſubject to menorrhagia. Vide *Diſſ. de Menthæ uſu*, p. 9.

[b] *Lewis, M. M. p.* 419. [c] *Cullen, M. M. vol. ii. p.* 149. [d] *L. c.*

[e] We are told, that "when cows have eaten the mentha arvenſis, as they will do largely at the end of ſummer, when the paſtures are bare, and hunger diſtreſſes them, their milk can hardly be made to yield cheeſe; a circumſtance which ſometimes puzzles the dairy-maids." *With. l. c.*

MENTHA PULEGIUM. PENNYROYAL MINT.

SYNONYMA. Pulegium. *Pharm. Lond. & Edinb. Raii Hiſt. p.* 533. *Synop. p.* 235. Pulegium latifolium. *Bauh. Pin. p.* 222. Pulegium regium. *Gerard Emac. p.* 671. Pulegium vulgare. *Park. Theat. p.* 29. Mentha caule proſtrato, foliis ſubrotundis obiter dentatis, ſtaminibus exſertis. *Hall. Stirp. Helv. n.* 221. Mentha Pulegium. *Hudſon. Flor. Ang. p.* 254. *Withering. Bot. Arr. p.* 602. *Lightfoot. Flor. Scot. p.* 306. *Relhan. Flor. Cantab. p.* 224.

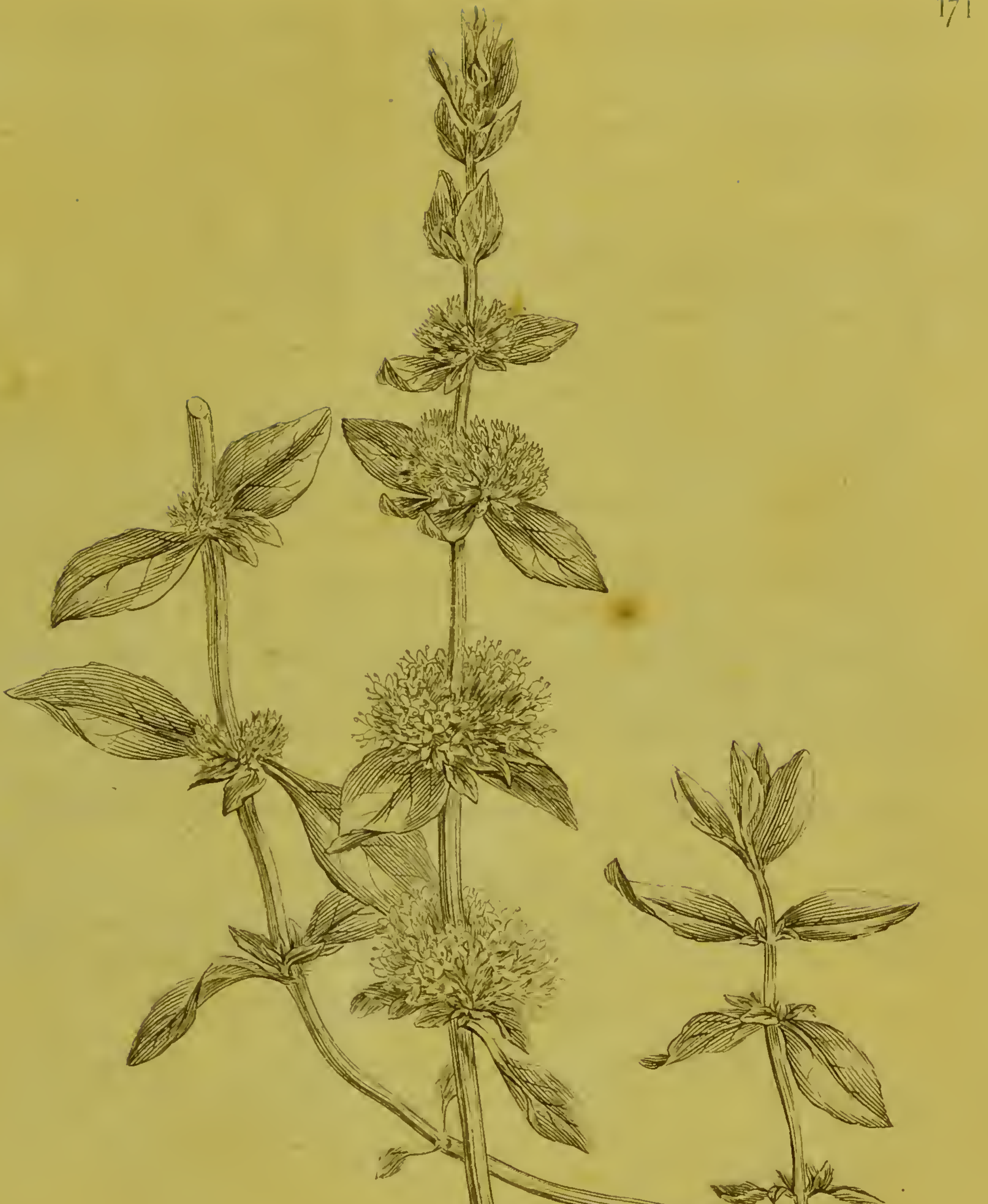
Claſs Didynamia. *Ord.* Gymnoſpermia. *Lin. Gen. Plant.* 713.

Eſſ. Gen. Ch. *Cor.* ſubæqualis, 4-fida: lacinia latiore emarginata. *Stamina* erecta diſtantia.

Sp. Ch. M. floribus verticillatis, foliis ovatis obtuſis ſubcrenatis, caulibus ſubteretibus repentibus.

THE root is perennial, creeping, fibrous: the ſtems are ſlender, procumbent, obtuſely quadrangular, branched, and about a foot in length: the leaves are ovate, obtuſe, ſomewhat indented, ſmooth, of a bright green colour, and ſtand upon ſhort footſtalks at the joints of the ſtem: the flowers are ſmall, of a pale purple colour, and ſurround the ſtem at the joints in whorls: the calyx is tubular, ſtriated, ventricoſe, and divided into five bearded ſegments; of theſe the two uppermoſt are the largeſt; the undermoſt one the leaſt. The other parts of infloreſcence agree with the preceding ſpecies of Mentha already deſcribed. It flowers in Auguſt and September.

Pennyroyal, like the other mints, is a native of Britain, affecting heaths and moiſt ſituations; but that uſed for medicinal purpoſes is commonly the produce of cultivation. It has a warm pungent flavour, ſomewhat ſimilar to mint, but more acrid, and leſs agreeable both in ſmell



Mentha Pulegium

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ſmell and taſte. Its "active principle is an eſſential oil, of a more volatile nature than that of mint, coming over haſtily with water at the beginning of the diſtillation, and riſing alſo in great part with highly-rectified ſpirit; in taſte very pungent, and of a ſtrong ſmell; when newly drawn, of a yellowiſh colour, with a caſt of green; by age turning browniſh."[a]

The Pulegium certainly poſſeſſes the general properties of the other mints: it is ſuppoſed, however, to be of leſs efficacy as a ſtomachic, but more uſeful as a carminative, and emmenagogue, and is more commonly employed in hyſterical affections. We are told by Boyle,[b] and others, that it has been ſucceſsfully uſed in the hooping-cough; but the chief purpoſe to which it has long been adminiſtered is promoting the uterine evacuation. With this intention, Haller recommends an infuſion of the herb with ſteel, in white wine, which he never knew to fail of ſucceſs.[c] However, in the opinion of Dr. Cullen, mint is in every reſpect a more effectual remedy than Pennyroyal; and "nothing but the neglect of all attempts to eſtabliſh principles could have made phyſicians think of this as a peculiar medicine different from the other ſpecies:"[d] and conformably to this remark, it may be obſerved, that this plant is leſs frequently uſed now than formerly.

Its officinal preparations are a ſimple water, a ſpirit, and an eſſential oil.

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[a] *Lewis, M. M. p.* 524.

[b] See his Works, Vol. iv. p. 475. Sauvages *Noſol. T.* 2. *P.* 2. *p.* 157. [c] *He ſays,* ——quod me nunquam fefellet. *Vide, l. c.*

[d] *Mat. Med. vol. ii. p.* 150.

DOLICHOS PRURIENS. COWHAGE DOLICHOS.

SYNONYMA. Dolichos. *Pharm. Edinb.* Phaſeolus Zurratenſis ſiliqua hirſuta, Couhage dicta. *Raii Hiſt. p.* 887. Phaſeolus americanus, foliis molli lanugine obſitis, ſiliquis pungentibus, ſemine fuſco punctato. *Pluk. Phyt. p.* 214. *f.* 1. Phaſeolus utriuſque Indiæ, lobis villoſis pungentibus minor. *Sloane Jam. vol. i. p.* 37. Phaſeolus virgatus hirſutus prurigineus. *Plum. Spec.* 8. Stizolobium ſpicis multifloris pendulis alaribus, floribus ternatis. *Browne Jam. p.* 290. Cacara pruritus. *Rumph. Amb. vol.* 5. *p.* 393. *t.* 142. Nâi-corana. *Hort. Mal. vol.* 8. *p.* 61. *t.* 35. Dâu ngûa. *Flor. Cochin. p.* 438. *Conf. Jacquin. Amer. pict. p.* 99. *t.* 188. Kerr. *Med. Comment. vol. ii. p.* 202.

Claſs Diadelphia. *Ord.* Decandria. *Lin. Gen. Plant.* 867.

Eſſ. Gen. Ch. *Vexilli* baſis callis 2, parallelis, oblongis, alas ſubtus comprimentibus.

Sp. Ch. D. volubilis, legum. racemoſis: valvulis ſubcarinatis hirtis, pedunculis ternis.

THE root is perennial, fibrous: the ſtem is herbaceous, climbing, cylindrical, hairy, divided into many branches, which twiſt round the neighbouring trees, and riſe to a conſiderable height: the leaves are ternate, and ſtand upon long footſtalks, placed alternately at the diſtance of a foot from each other: each pinna, or lobe, is entire, ovate, pointed, ſmooth on the upper ſide, on the under hirſute; the lateral lobes are oblique, and ſomewhat larger than that in the middle, which is of a rhomboidal ſhape: the proper footſtalks are ſhort, and furniſhed with ſmall ſtipulæ: the flowers are large, of a purpliſh or violet colour, and placed moſtly in ternaries upon ſhort peduncles, and form pendant ſpikes, which ariſe from the axillæ of the leaves, and

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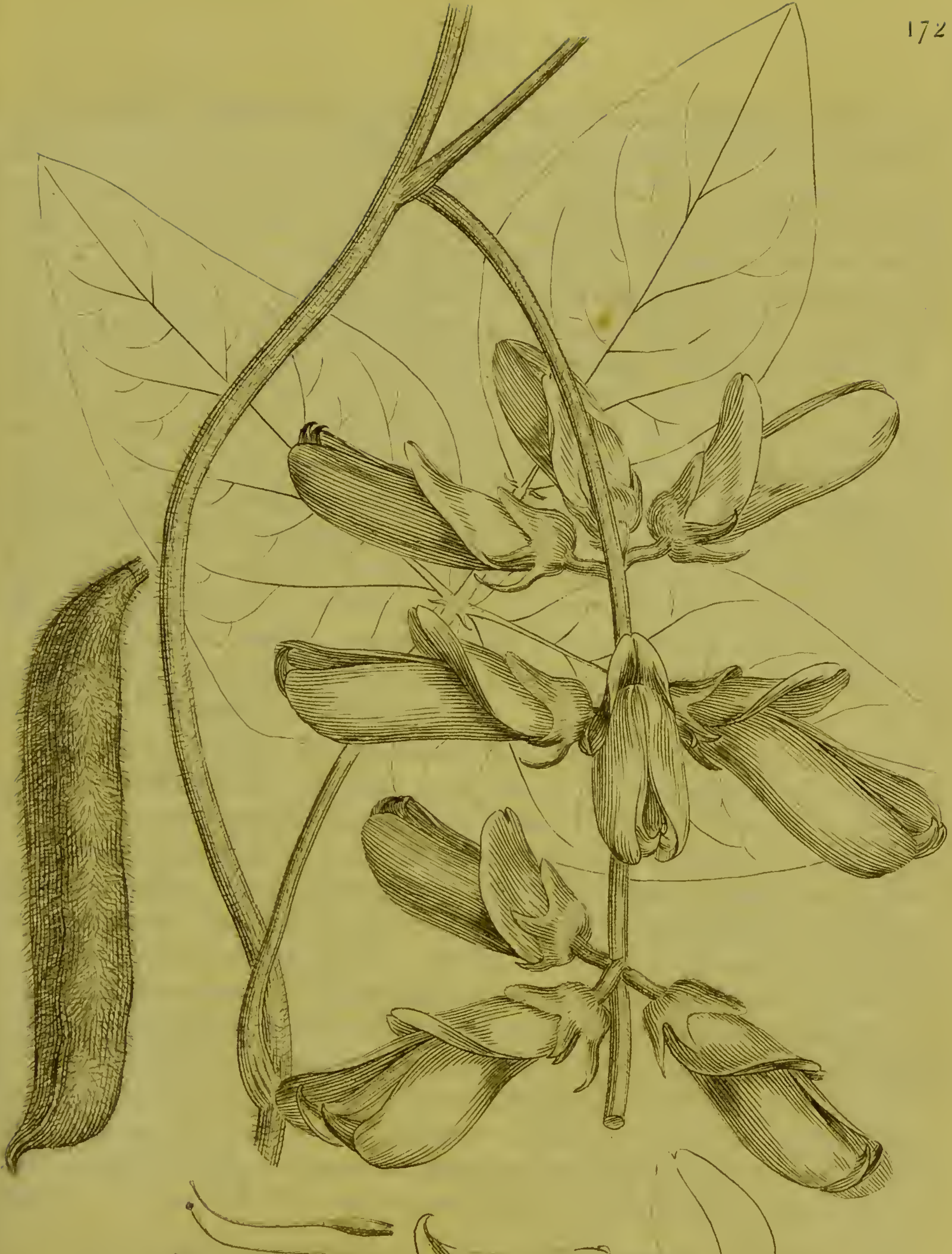

Dolichos pruriens

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and are about a foot in length: the calyx is bell-ſhaped, gibbous at the baſe, lax, downy, divided into two lips, of which the upper is ſemi-ovate; the under ſeparates into three lance-ſhaped ſegments: the corolla is of the papilionaceous order, conſiſting of a *vexillum* (ſtandard) which is roundiſh, entire, concave, obtuſe, and double the length of the calyx; two *alæ* (wings) which are oblong, obtuſe, concave, and twice the length of the vexillum; a *carina* (keel) which is ſcythe-ſhaped, of the length of the alæ, compreſſed, and at the apex furniſhed on each ſide with a ſhort concave ſpur: the filaments are ten, nine of which are united at the baſe; they are alternately longer and ſhorter; the former are four times the breadth of the others, and ſupplied with incumbent antheræ; but the antheræ of the latter are placed vertically: the germen is oblong, villous, and ſupports a ſlender ſtyle about the length of the filaments, terminated by a ſmall orbicular ſtigma: the fruit is an oblong pod, in the form of the letter *ſ*, four or five inches in length, covered with brown briſtly hairs, and containing four, five, or ſix ſeeds, of a browniſh colour. The flowers appear in September and October.

The plant, known by the name of Cow-itch, Couhage, and Cowhage, is referred by Bergius and Miller to the Dolichos urens of Linnæus; and this error is alſo to be found in Aiton's Hortus Kewenſis.

Though the pods of both D. urens and D. pruriens are beſet with ſetaceous hairs, but of the former theſe are ſhorter, and very thinly ſcattered over the pod, which is keel-ſhaped, much longer, and more than twice the breadth of that of the latter, and marked tranſverſely with deep furrows. Theſe circumſtances ſhow, that the D. urens is widely different from the officinal Cowhage here figured, which is a native of both Indies, and appears to have been cultivated in England in the time of Ray by Mr. Charles Hatton;[a] and the plant is now growing in the apothecaries garden at Chelſea; but we cannot learn that it has ever been known to produce perfect flowers in our garden ſtoves: ſo that for the very correct figure ſubjoined to this ſheet we are indebted to the liberality of Sir Joſeph Banks, in whoſe herbarium we found an excellent ſpecimen of the plant.

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[a] Terræ commiſſa in horto *D. Caroli Hatton* plantas produxere. Vide *Raii Hiſt.* p. 887. In the *Hort. Kew.* D. pruriens is ſaid to have been firſt introduced here by Mr. Gilbert Alexander: this miſtake was probably cauſed by confounding the D. pruriens with the D. urens.

The ſharp hairs of the pod readily penetrate the ſkin, and cauſe a very troubleſome itching, a miſchievous purpoſe to which in this country they have been long chiefly converted. But the violent irritation which theſe hairs produce upon the external ſkin has not deterred practitioners from adminiſtering them internally, eſpecially in the Weſt Indies, where they have been generally employed for many years as a ſafe and efficacious anthelmintic; and with a view to this effect they are now admitted into the Materia Medica of the Edinburgh Pharmacopœia.

Sir Hans Sloane, who has noticed the diuretic qualities of the roots and pods of this plant, obſerves, that an infuſion of the latter "is a "certain remedy for the dropſie;"[b] but he takes no notice of the vermifuge effects of Cowhage: Browne however has informed us, that "in the Windward Iſlands ſome of the inhabitants make a ſyrup "of the pods, which is ſaid to be very effectual againſt worms." But as little attention would be paid to an obſervation ſo vague and unſatisfactory as this, we are to conſider Mr. Bancroft as the firſt perſon whoſe writings tended to eſtabliſh the anthelmintic character of Cowhage in Europe. He tells us, "the part uſed is the ſetacious hairy ſubſtance "growing on the outſide of the pod, which is ſcraped off, and mixed "with common ſyrup or molaſſes, to the conſiſtence of a thin elec-"tuary, of which a tea-ſpoonful to a child of two or three years "old, and double the quantity to an adult, is given in the morning "faſting, and repeated the two ſucceeding mornings; after which a "doſe of rhubarb is uſually ſubjoined. This is the empyrical "practice of the planters, who uſually once in three or four months "exhibit the Cow-itch in this manner to their ſlaves in general, but "eſpecially to all their children without diſtinction; and in this "manner I have ſeen it given to hundreds from one year old and "upwards with the moſt happy ſucceſs. The patients, after the "ſecond doſe, uſually diſcharged an incredible number of worms, "even to the amount of more than twenty at a time, ſo that the

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[b] He alſo informs, that this remedy was ſucceſsfully uſed in the Eaſt Indies by Mr. Buckley. *L. c.*

"ſtools conſiſted of little elſe than theſe animals." He concludes by ſaying, "It is to be obſerved, that this remedy is particularly "deſigned againſt the long round worm; whether it is equally dele"terious to the aſcarides, or whether it has ever been uſed againſt "them, I am uncertain."[c] Farther accounts, ſhewing the efficacy of this medicine, have ſince appeared in the Medical Commentaries,[d] and in a treatiſe, profeſſedly written on the ſubject by Mr. Chamberlaine,[e] to which a number of caſes is ſubjoined, and to which great additions lately have been made on various and indubitable authorities, proving the Cowhage to be not leſs ſucceſsful here than in the warmer climates of which it is a native; and that all the different kinds of worms, known to infeſt the primæ viæ, have been expelled by this anthelmintic.

The manner, in which theſe hairy ſpiculæ act as a vermifuge, ſeems to be purely mechanical; for neither the tincture, nor the decoction, poſſeſſes the leaſt anthelmintic power.[f]

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[c] Vide his Eſſay on the natural hiſtory of Guiana in South America.

[d] See *Vol. ii.*

[e] Practical treatiſe on the efficacy of Stizolobium or Cowhage, publiſhed in 1785. As the Cowhage is ſeldom to be met with at the druggiſts, Mr. C. informs thoſe who wiſh to give it a trial, that it is to be had at his houſe in Ayleſbury ſtreet, Clerkenwell.

[f] The following experiment, made by Mr. Chamberlaine, illuſtrates this opinion:— "A calabaſh, full of very large worms of the *teres* kind, in full vigour, voided by a poor emaciated patient, was brought to me. Among theſe, I ſprinkled ſome of the ſetæ. For a minute or two no viſible effect was produced; but in a little time they began to writhe and twiſt themſelves in an unuſual manner, and exhibited evident ſigns of extreme torture. I took one of the worms, and viewing it through a magnifying glaſs, perceived that ſeveral of the ſetæ had pierced very deep, and others were ſticking looſely in various parts of its body, but that none of the ſpiculæ, which had once entered into the ſkin, dropped off." *L. c.*

ACORUS CALAMUS. SWEET FLAG, Or ACORUS.

SYNONYMA. Calamus aromaticus. *Pharm. Lond. & Edinb.* Acorus verus, ſive Calamus aromaticus officinarum. *Bauh. Pin. p.* 34. *Park. Theat. p.* 140. *Raii Hiſt. p.* 1313. *Synop. p.* 437. Acorus verus, officinis falsò Calamus. *Gerard. Emac. p.* 62. Acorus. *Hall. Stirp. Helv. n.* 1307. Acorus Calamus. *Hudſon Flor. Ang. p.* 147. *Withering. Bot. Arr. p.* 357. *Relhan. Flor. Cant. p.* 140. Thach xuog bô. *Flor. Cochin. p.* 208.

Claſs Hexandria. *Ord.* Monogynia. *Lin. Gen. Plant.* 434.

Eſſ. Gen. Ch. *Spadix* cylindricus, tectus floſculis. *Cor.* 6-petalæ, nudæ. *Stylus* nullus. *Caps.* 3-locularis.

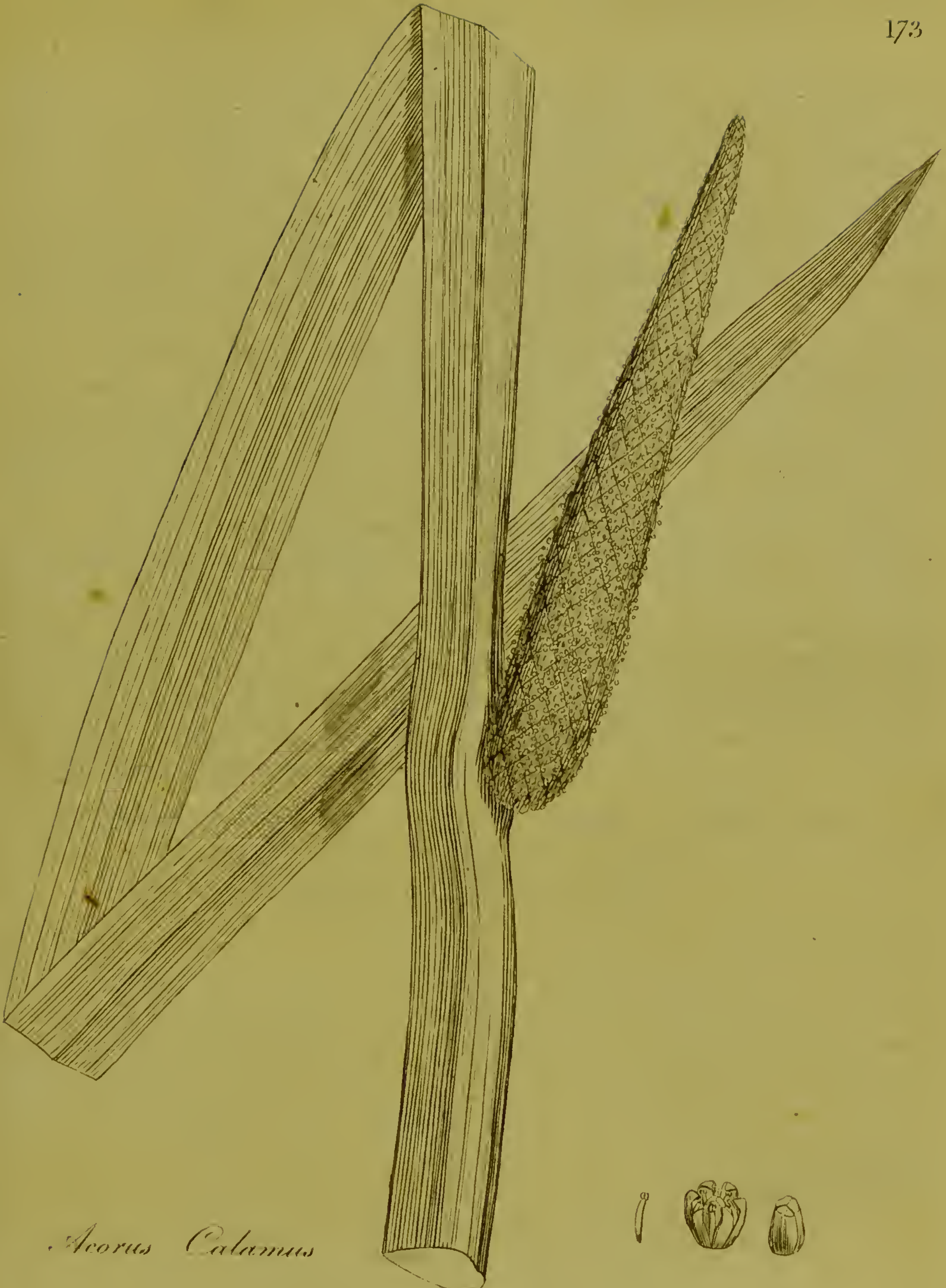
Sp. Ch. A. ſcapi mucrone longiſſimo foliaceo. *Hort. Kew.*

THE root is perennial, horizontal, crooked, pointed, fibrous, ſomewhat compreſſed, about an inch thick, externally yellowiſh, with a greeniſh tinge, rugoſe, internally whitiſh, and of a ſpongy texture: the leaves are long, ſword-ſhaped, ſheathing one another, and commonly undulated on one ſide: the flowers are ſmall, numerous, and produced on a ſpadix or conical ſpike at the edge of the leaf: there is no calyx: the corolla is compoſed of ſix petals, which are ſmall, membranous, concave, and appear truncated: the ſix filaments are thick, ſomewhat longer than the petals, and furniſhed with double antheræ: the germen is gibbous, oblong, without a ſtyle, and terminated by a pointed ſtigma: the capſule is oblong, triangular, and divided into three cells, containing numerous oval ſeeds.

According to Linnæus, this is the only true aromatic plant indigenous to northern climates. It is common in many parts of England, and uſually grows in ſtagnant waters, and the ſides of rivers, producing its flowers in May and June.

The roots of Calamus aromaticus have been long medicinally employed,[a] and were formerly imported here from Aſia and the Levant; but

[a] The virtues of Calamus aromaticus are noticed both by the Greeks and Arabians. See *Dioſ. L.* 1. *c.* 2. *Alpin. p.* 141.



Acorus Calamus

Publiſhed by Dr. Woodville Novr. 1. 1792.

but thoſe of Engliſh growth are now very generally ſubſtituted, and found to be little or nothing inferior to the exotic ſort, which is merely a variety of the ſame ſpecies.[b]

The root, in its dried ſtate, has a moderately ſtrong aromatic ſmell, and a warm pungent bitteriſh taſte. Water is found to extract the bitter matter of the root moſt completely, and rectified ſpirit that of the aromatic. It imparts its virtues to water in diſtillation along with a ſmall quantity of eſſential oil, amounting only to two ounces from fifty pounds of the root, according to Hoffman; but Neuman and Cartheuſer obtained the oil in a much larger proportion.

The root of Calamus, though not heating like the ſpices, manifeſts to the taſte conſiderable pungency, and a moderate ſhare of bitterneſs, and has therefore been deemed uſeful as a warm ſtomachic, and was formerly much uſed here in combination with the more ſimple bitters, which, by this addition, were rendered more grateful and carminative. It has been recommended in vertigo, proceeding from a vitiated ſtomach,[c] and in intermittent fevers, which we are told were cured by this root, after the bark had failed.[d] We are alſo informed of its efficacy in ſcorbutic and hæmorrhagic complaints;[e] but to this, little credit will be given, and much leſs to the ſuppoſed elexipharmic power of Calamus, though it is an ingredient in the theriaca and mithridate of dignified memory, and ſtill is much uſed in eaſtern countries as a preſervative againſt contagion.

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[b] Vide *Lin. Sp. Pl. p.* 462.

[c] *De Mayerne. Prax. Med. p.* 59.

[d] *Act. Societ. Med. Havn. vol.* 9. *p.* 206.

[e] See *Murray. App. Med. v.* 5. *p.* 42.

CALAMUS ROTANG. ROTANG CANE.

Sanguis draconis, *Pharm. Lond.* & *Edinb.* e fructibus hujus arboris maxime deſumitur.

SYNONYMA. Palmijuncus Draco. *Rumph. Herb. Amb. tom.* 5. *p.* 114. *tab.* 58. *f.* 1. Dſierenang. *Kæmpfer. Amæn. Exot. p.* 552.

Claſs Hexandria. *Ord.* Monogynia. *Lin. Gen. Plant.* 436.

Eſſ. Gen. Ch. *Cal.* 6-phyllus. *Cor.* 0. *Bacca* exarida, 1-ſperma, retrorſum imbricata.

THIS tree may be conſidered as a ſcandent kind of palm: the lower part of the ſtem, to the extent of two or three fathoms, is ſtrong, erect, hollow, jointed, and beſet with numerous ſpines; afterwards it takes a horizontal direction, and overruns the neighbouring trees to the diſtance of fifty or even one hundred feet: the leaves are ſeveral feet long, and compoſed of numerous pinnæ, which are nearly a foot long, narrow, ſword-ſhaped, and at the edges ſerrated with ſpinous teeth: the flowers are produced in ſpikes, which ſeparate into long ſpreading branches: the calyx is divided into ſix perſiſtent leafits, three exterior and three interior; the former are very ſhort and pointed, the latter are oblong, concave, rigid, and unite cloſely, ſo as commonly to conceal the inner parts of the flower: it has no corolla: the filaments are ſix, capillary, and furniſhed with round antheræ: the germen is roundiſh, placed above the inſertion of the calyx, and the ſtyle is trifid, filiform, twiſted in a ſpiral manner, and terminated by ſimple ſtigmata: the fruit is ſomewhat larger than that of a filbert, membranous, round, one-celled, covered with regular inverted obtuſe ſcales, and contains a red reſinous pulp, which ſoon becomes dry: the ſeed is round and fleſhy. It is a native of the Eaſt Indies, where it commonly grows in woods near rivers, and has long ſupplied Europe with walking-canes, which have uſually been imported by the Dutch.

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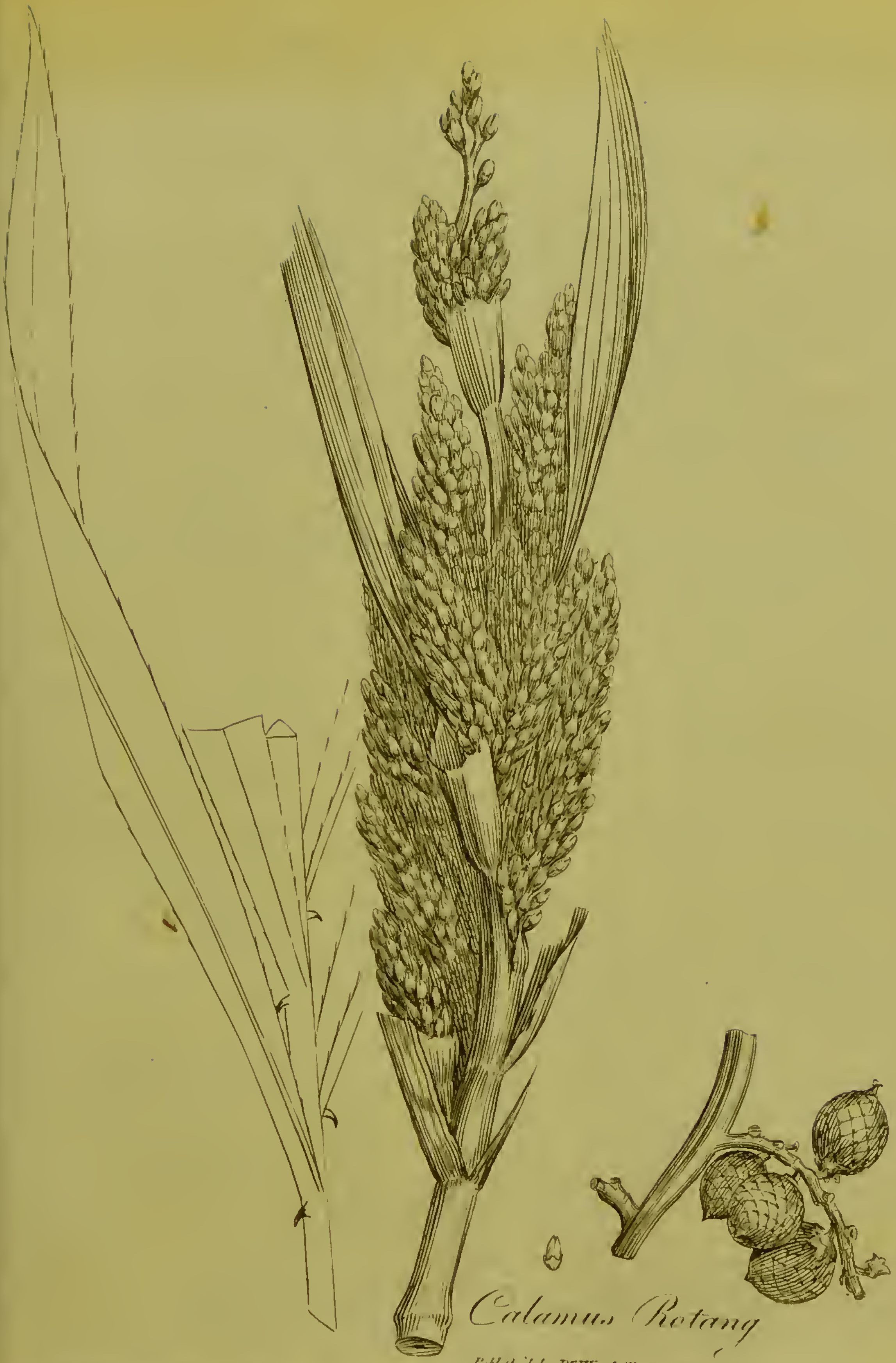

Calamus Rotang

Publiſhed by Dr. Woodville Novr. 1. 1792.

According to Linnæus there are ſeveral varieties of the Calamus Rotang, which he has founded upon the different figures of this tree given by Rumphius; but whether theſe are varieties only, or diſtinct ſpecies, it is not for us to determine. The ſpecimens of the Calamus in the herbariums of Sir Joſeph Banks and Dr. Smith, differ conſiderably in their foliage; ſo that different ſpecies of this obſcure genus will probably in future be ſyſtematically defined; our buſineſs however has only been to ſelect for delineation that which accorded beſt with the deſcriptions of it given by Rumphius and Kæmpfer, conformably to the ſynonyms to which we have referred.

Several trees are known to abound with a red reſinous juice, which is obtained by wounding the bark, and called dragon's blood, as the Pterocarpus Draco or Pterocarpus officinalis of Jacquin, the Dracaena Draco, the Dalbergia monetaria, and the Pterocarpus ſontolinus.—Beſides theſe, many of the Indian red woods, while growing, pour forth through the fiſſures of the bark a blood-coloured juice, forming a reſinous concretion, to which the name dragon's blood has been affixed.[a] This drug however is chiefly obtained from the fruit of the Calamus Rotang, and is procured at the Molucca Iſlands, Java, and other parts of the Eaſt Indies, according to Kæmpfer, by expoſing this fruit to the ſteam of boiling water, which ſoftens the external ſhell, and forces out the reſinous fluid, which is then incloſed in certain leaves, of the reed kind, and hung in the air to dry. Another way of obtaining the Sanguis Draconis is by ſimply boiling the fruit in water, inſpiſſating the ſtrained decoction, and drying it in the ſame manner as the former. In Palimbania the external ſurface of the ripe fruit is often obſerved covered with the reſin, which is rubbed off by ſhaking the fruit together in a bag; when this is done, the drug is melted by the ſun's heat, and formed into globules, which are folded in leaves: this is deemed the pureſt kind of dragon's blood; and that which is next in goodneſs is procured by taking the fruit, which is found to be ſtill diſtended with reſin, out of the bag, and, after bruiſing it, expoſing it to the ſun, or boiling it gently in water; the drug then appears floating upon the ſurface, and is ſkimmed off and ſhaped into ſmall cakes. The inferior ſort of dragon's blood is that which riſes from the crude fruit after being long boiled, and is uſually formed into very large cakes, or maſſes, in which the membranous parts of the fruit, and other impurities, are intermixed. It is alſo brought to us adulterated, or artificially compoſed, in various ways. Both the ſmall globules, and the large maſſes, which we have noticed, are imported here, and found to vary widely in goodneſs and purity. The beſt kind of this gummy reſinous ſubſtance breaks ſmooth, is of a dark red colour, and when powdered changes to crimſon; it readily melts, and catches flame. It is not acted upon by watery liquors, but it totally diſſolves in pure ſpirit, and ſoluble likewiſe in expreſſed oils. It has no ſmell, but to the taſte diſcovers ſome degree of warmth and pungency.

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[a] As ſome of the Crotons, (vide *Linn. Supp. p.* 319) and other trees noticed by Cranz, *de duabus draconis arboribus. ad, p.* 13. An exudation ſimilar to the ſanguis draconis produced from a tree at Botany Bay, was diſcovered by Sir Joſeph Banks and Dr. Solander. Vide *Hawkeſworth's Collection of Voyages, vol.* 3. *p.* 498. *&* 505. But the ſubſtance now known at New South Wales by the name of red gum, is perfectly ſoluble in water; the yellow gum of this place is however in its chemical and medicinal qualities not very different from ſanguis draconis, and has been ſucceſsfully employed as an aſtringent by Dr. Biane. See *Phillip's Voyage to New South Wales. p.* 59.

The Cinnabris and Sanguis Draconis appear to have ſignified the ſame thing with the Ancient Greeks,[*] who were well acquainted with the aſtringent power of this medicine; and in this character it has ſince been much employed in hæmorrhages and alvine fluxes. At preſent however it is rarely uſed internally, being ſuperſeded by more certain and effectual remedies of this numerous claſs; and it enters no officinal compoſition but that of emplaſtrum thuris of the London Pharmacopœia.

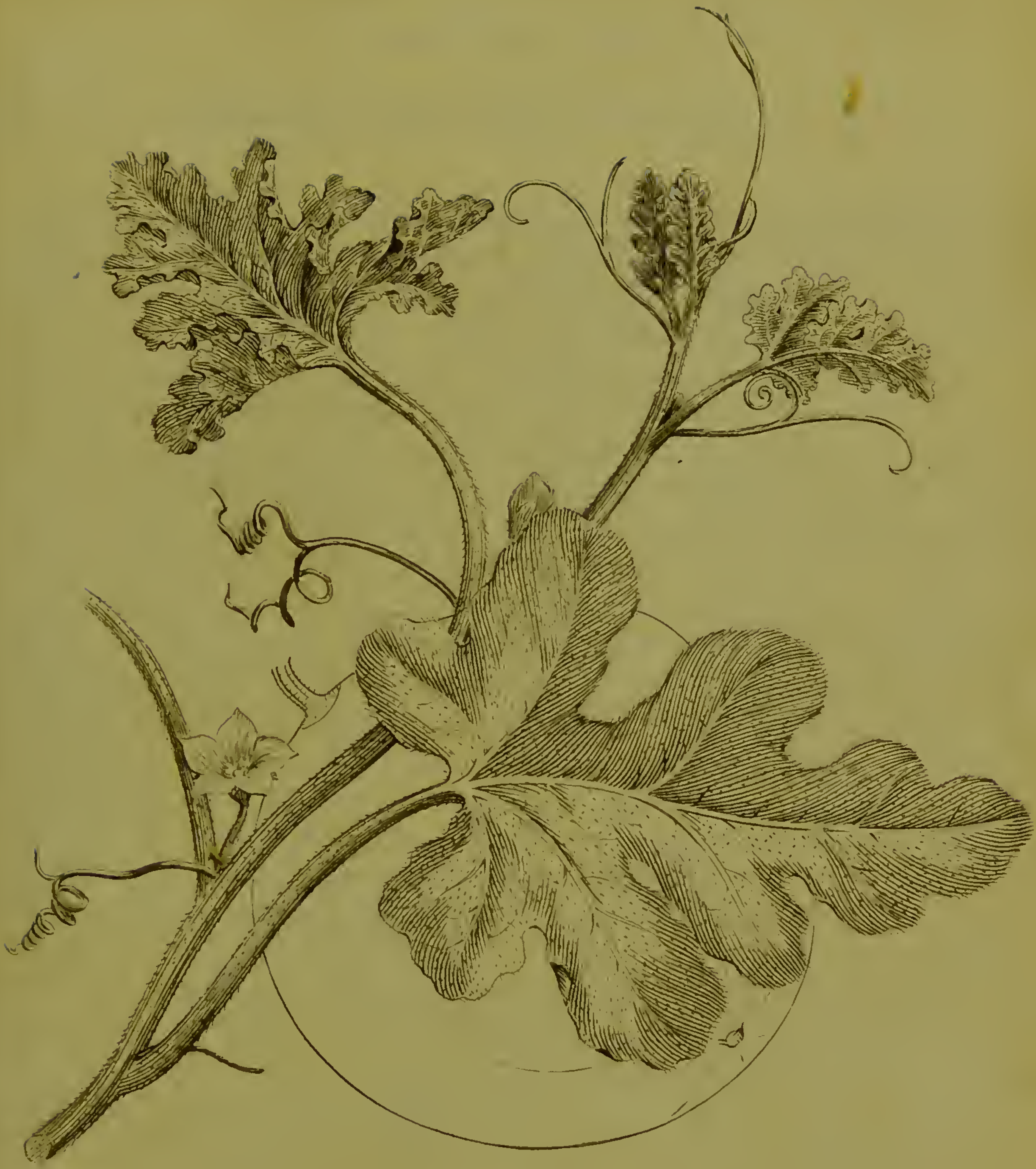
[*] *Κινναβαρι, αιμα δρακοντος.*

CUCUMIS COLOCYNTHIS. BITTER CUCUMBER, Or, COLOQUINTIDA.

SYNONYMA. Colocynthis. *Pharm. Lond. & Edinb. Gerard Emac. p.* 915. *Cam. Epit. p.* 982. *Raii Hiſt. p.* 642. Colocynthis fructu rotundo minor. *Bauh. Pin. p.* 313. Colocynthis vulgaris. *Park. Theat. p.* 160.

Claſs Monoecia. *Ord.* Syngeneſia. *Lin. Gen. Plant.* 1092.

Eſſ. Gen. Ch.



Cucumis Colocynthis

Publiſhed by Dr. Woodville Novr. 1. 1792.

Eſſ. Gen. Ch. *Masc.* *Cal.* 5-dentatus. *Cor.* 5-partita. *Filamenta* 3.
Fem. *Cal.* 5-dentatus. *Cor.* 5-partita. *Piſt.* 3-fidum.
Pomi ſemina arguta.

Sp. Ch. C. foliis multifidis, pomis globoſis glabris.

THE root is annual, white, divided into long branches, which ſtrike deeply into the ground: the ſtems trail, like thoſe of the garden cucumber, a conſiderable length, and are beſet with rough hairs: the leaves are of a triangular ſhape, obtuſe, variouſly ſinuated, hairy, on the upper ſurface of a fine green, beneath rough, and whitiſh: the flowers are yellow, ſolitary, and appear at the axillæ of the leaves: the calyx of the male flowers is bell-ſhaped, and divided at the brim into five tapering ſegments: the corolla is monopetalous, bell-ſhaped, and divided at the limb into five pointed ſegments: the filaments are three, two of which are bifid at the apex; they are all very ſhort, and inſerted into the calyx: the antheræ are linear, long, erect, and adhere together on the outer ſide: the calyx and corolla of the female flower are ſimilar to thoſe of the male: the three filaments are without antheræ: the germen is large: the ſtyle cylindrical, very ſhort, furniſhed with three ſtigmata, which are thick, gibbous, bifid, and bent outwardly: the fruit is a round apple, of the ſize of an orange, divided into three cells, abounding with a pulpy matter, ſeparated every where by cellular membrane, and including many ovate compreſſed ſeeds. The flowers appear from May till Auguſt.

Colocynth is imported for uſe to this part of Europe from Turkey, but it is yet unknown here of what place this plant is a native. It ſeems to have been cultivated in Britain in the time of Turner, and the figure we have given was drawn from a ſpecimen of the plant produced by ſowing the ſeed in a hot bed. Though the plants thus raiſed put forth flowers readily, they are very rarely known to bear fruit. The ſpongy membranous medullary part of the fruit is directed for medicinal uſe: this, "which to the taſte is nauſeous, acrid, and intenſely bitter, on being boiled in water, renders a large quantity of the liquor ropy and ſlimy: even a tincture of it made in proof ſpirit is ſo glutinous as not to paſs through a filter, and not eaſily through a common ſtrainer. The watery decoctions inſpiſſated, yield a large proportion, half of the weight of the colocynth, or more, of a mucilaginous extract; which purges ſtrongly, but with much leſs irritation, and greater ſafety, than the colocynth itſelf, and appears to be the beſt preparation obtainable from this draſtic drug."[a]

This very powerful and irritating cathartic is the Κολοκυνθίς of the Ancient Greeks, and the Alhandal of the Arabians. It was frequently employed by both in different diſeaſes, though not without an apprehenſion of danger, from the violence of its effects, of which various inſtances are related.[b] In doſes of ten or twelve grains this ſubſtance purges with great vehemence, frequently producing violent gripes, bloody diſcharges, and even diſordering the whole ſyſtem. Many attempts therefore have been made to correct its virulence, by the addition of acids, aſtringents, and the like; but theſe ſeem to anſwer no other purpoſe than what might be equally effected by a reduction of the doſe. "The beſt method of abating its virulence, without diminiſhing its purgative virtue, ſeems to be by triturating it with gummy farinaceous ſubſtances, or the oily ſeeds, which, without making any alteration in the colocynth itſelf, prevents its reſinous particles from cohering, and ſticking upon the membranes of the inteſtines, ſo as to irritate, inflame, or corrode them."[c]

This draſtic purgative has been recommended in various chronic complaints;[d] but as ſeveral other cathartics have all the advantages of coloquintida, and may be uſed with more ſafety, its uſe is now ſeldom reſorted to, eſpecially alone. Extractum colocinthidis compoſitum & pipulæ ex colocynthide cum aloe, are directed by the Pharmacopœias.

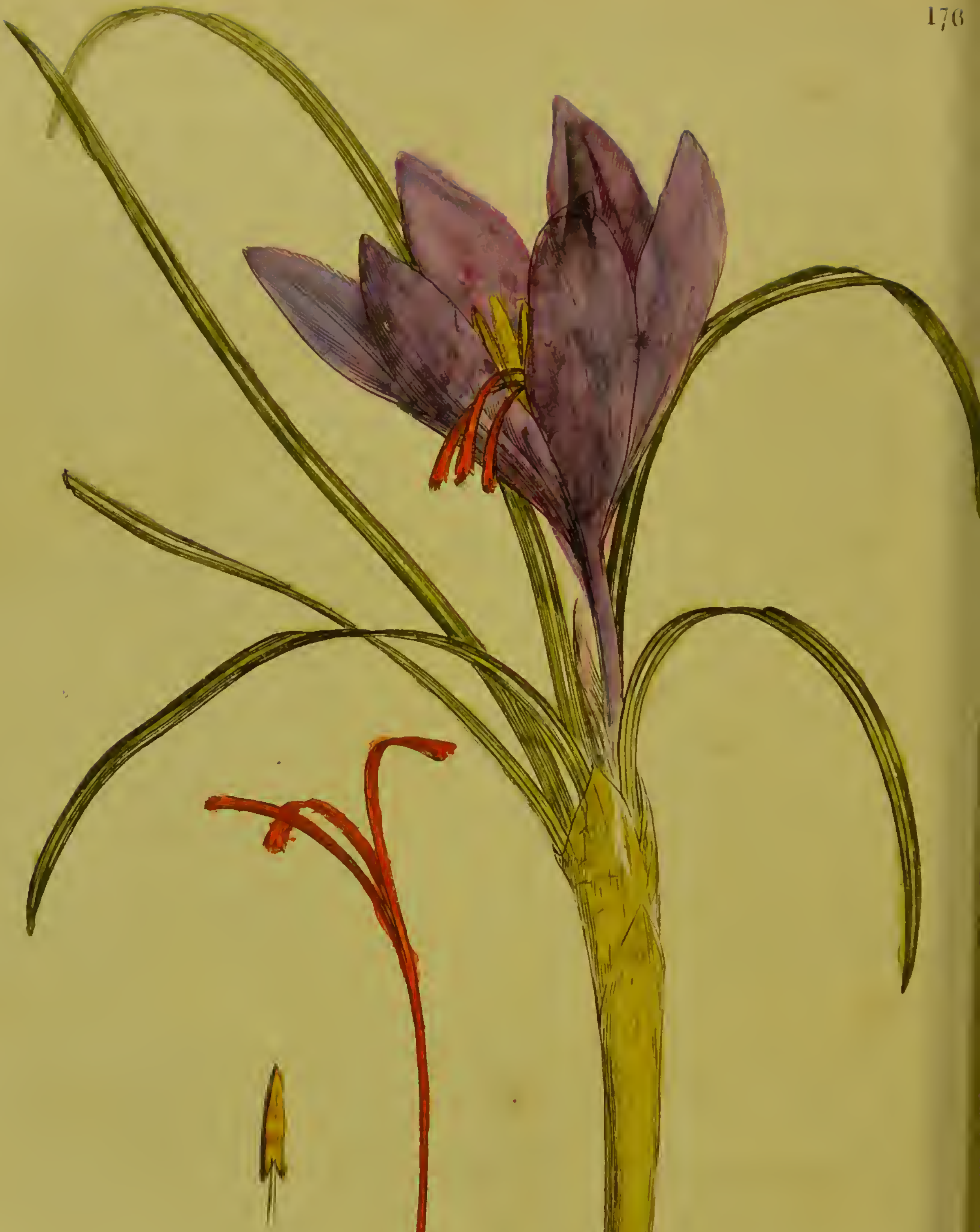
[a] *Lewis, M. M. p.* 246.

[b] See *Shulz Diſſ. de Colocynthide. Tulp. Obſ. lib.* 4. *c.* 26. *p.* 218. A caſe in which it proved fatal is mentioned by *Plater, Obſ. p.* 858. And *Dioſcorides* obſerves, that, employed in the way of enema, it occaſioned a bloody diſcharge. *Lib.* 4. *c.* 178.

[c] *Edinburgh New Diſpenſ. by Dr. Duncan. p.* 175.

[d] As worms, lues venerea, cephalalgia, mania, dropſy, Gonorrhæa, epilepſy, aſthma, &c.

CROCUS SATIVUS.



Crocus sativus

Publiſhed by Dr. Woodville. Decr. 1, 1792.

CROCUS SATIVUS. SAFFRON CROCUS.

SYNONYMA. Crocus. *Pharm. Lond. Gerard. Emac. p.* 151. *Raii Hiſt. p.* 1176. *Synop. p.* 374. Crocus verus ſativus autumnalis. *Park. Parad. p.* 167. Crocus ſativus. *Bauh. Pin. p.* 65. *Hudſon. Flor. Ang. p.* 13. *Withering. Bot. Arr. p.* 37. *Relhan. Flor. Cant. p.* 15. *Miller's Figures, t.* 111. Conf. *Douglas. Phil. Tranſ. vol.* 32. *p.* 441. *Du Hamel, and Fougeroux De Bondaroy. Mem. de L'Acad. des Scien. de Paris*, 1728. *p.* 100. *and p.* 92. *f.* 1. 2.

Claſs Triandria. *Ord.* Monogynia. *Lin. Gen. Plant.* 55.

Eſſ. Gen. Ch. *Cor.* 6-partita, æqualis. *Stigmata* convoluta.

Sp. Ch. C. ſpatha univalvi radicali, corollæ tubo longiſſimo.

α C. autumnalis, *foliis anguſtioribus margine revolutis.* Miller. Illuſ.

β C. vernalis, *foliis latioribus margine patulo.* Jacquin. Auſt. v. 5.
Curt. Mag. 45.

THE root is bulbous, perennial: the flower appears after the leaves, riſing very little above the ground upon a ſlender ſucculent tube: the leaves riſe higher than the flower, are linear, ſimple, radical, of a rich green colour, with a white line running in the centre, and all at the baſe incloſed along with the tube of the flower in a membranous ſheath: the flower is large, of a bluiſh purple, or lilac colour: the corolla conſiſts of ſix petals, which are nearly elliptical, equal, and turned inwards at the edges: the filaments are three, ſhort, tapering, and ſupport long erect yellow antheræ: the germen is roundiſh, from which iſſues a ſlender ſtyle, terminated by three long convoluted ſtigmata, of a deep yellow colour: the capſule is roundiſh, three-lobed, three-celled, three-valved, and contains ſeveral round ſeeds. It flowers in September and October.

It is now indubitably aſcertained that this plant is a native of England, though unknown to Ray, Miller, and ſeveral other ſubſequent botaniſts. It has been long cultivated for uſe in this and in many other countries; but Engliſh Saffron is generally preferred here to that which is imported from abroad, and may be diſtinguiſhed by its parts being larger and broader. All the different plants of this genus are by Linnæus conſidered only as varieties of the C. ſativus. Jacquin,[a] however, makes a diſtinct ſpecies of the ſpring Crocus: in this he has been followed by Curtis, who has publiſhed a figure of the plant in his botanical magazine: and Miller, who deſcribes four ſpecies of this family, thinks all of them " muſt be allowed to be ſpecifically different, ſince they do not vary to each other."[b]

The ſtigmata of the Crocus here figured, which conſtitute the officinal Saffron, are eaſily to be diſtinguiſhed from thoſe of the other varieties, and in the neighbourhood of Saffron-Walden, and in ſome parts of Cambridgeſhire, where the plant is chiefly cultivated, are prepared for uſe in the following manner. In autumn, when the flowers appear, they are gathered every morning, and are ſpread upon a table; the ſtigmata along with a portion of the ſtyle, are then picked from the other part of the flowers, which are thrown away as uſeleſs. The ſtigmata being thus collected in ſufficient quantity are then dried, which is effected by means of portable kilns, of a peculiar conſtruction, over which a hair cloth is ſtretched; and upon this are placed a few ſheets of white paper, on which the ſtigmata are ſtrewed, about two or three inches thick, and then covered with ſeveral ſheets of paper, over which is laid a coarſe blanket, five or ſix times folded, or a canvas bag filled with ſtraw; and when the fire has heated the kiln, a board, on which a weight is put, is placed upon the blanket in order to preſs the Saffron into a cake. For the firſt hour a pretty ſtrong fire is employed; the Saffron is then found to be formed into a cake, which, after being turned, is ſubjected for another hour to the ſame degree of heat: it is then turned a ſecond time, and a more gentle heat is applied for about twenty-four hours, or till the cake becomes dry, during which time it is turned every half hour.[c]

[a] Vide *l. c.* [b] See *Dict.* [c] For a full account of the cultivation and management of Saffron, ſee *Douglaſs* in *Phil. Tranſ. vol.* 35. *p.* 566. And *Miller's Dict.*

Saffron, thus prepared, has a powerful penetrating diffuſive ſmell, and a warm pungent bitteriſh taſte. "It gives out the whole of its virtues and colour to rectified ſpirit, proof ſpirit, wine, vinegar, and water: about three parts in four of the Saffron are taken up by each of theſe menſtrua; and the matter which remains undiſſolved is inodorous, inſipid, and of a pale clay colour.[d]" The acetous, and even vinous tinctures of Saffron, on long keeping, loſe a little of their colour and ſtrength, but thoſe made with rectified ſpirit remain in perfection for years.[e] "In diſtillation it impregnates water ſtrongly with its flavour: if the quantity of Saffron is large, a ſmall portion of a fragrant and very pungent eſſential oil may be collected, amounting, as is ſaid by Vogel, to about a dram and a half from ſixteen ounces. Rectified ſpirit elevates alſo a conſiderable ſhare of its flavour, but leaves much the greater part concentrated in the extract."[f]

Saffron is evidently the Κροκος of the Greeks, Crocus of the Latins, and Zaffaran, or Zahafaran, of the Arabians. It was held in much eſtimation by the Hebrews, who called it Carcom, and was greatly celebrated in ancient times both by phyſicians and poets. As a medicine, Saffron was conſidered to be very powerful. Schroder aſſerts, that if taken to the quantity of two or three drams, it proves fatal; and by ſeveral authors we are informed, that in large doſes it produced cephalalgia, intoxication, and mania.[h] We are alſo aſſured, that it penetrates every part of the body, tinging the ſolids and excretions with a yellow colour;[i] and that even the odour or effluvia of this drug, have been known to produce deleterious effects.[k] It appears, however, from the experiments of Dr. Alexander,[l] that Saffron poſſeſſes but very little active power, and may be taken in conſiderable quantity, without producing any remarkable effect: and it was lately given in the Edinburgh Infirmary, by Dr. Henry Cullen, even to the extent of half an ounce a-day, in ſeveral hyſterical caſes, without any ſenſible effect whatever.*

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[d] *Lewis, M. M.* p. 258. [e] *Ibid.* [f] *Ibid.*

[h] See eſpecially *Zacut. Luſit. apud Fricc. de venen.* p. 394.

[i] Hertodt, *Crocologia.* p. 279.

[k] Borellus. *Hiſt. et Obſ. cent.* 4. *Obſ.* 35. p. 303. Tralles, *de Opio. ſect.* 1. p. 114. *Zacut. Luſit. l. c.*

[l] *Experimental Eſſays*, p. 88.

* See *Duncan's Edinburgh New Diſpenſatory*, p. 178.

Writers on the Materia Medica have very generally conſidered Saffron as a moſt exhilarating cordial; and for this purpoſe Boerhaave preferred the extract, inſpiſſated only to the conſiſtence of oil: but the obſervations of modern phyſicians do not furniſh us with one inſtance in which this drug had any remarkable effect in raiſing the ſpirits; on the contrary Bergius informs us, that a lady always experienced great deſpondency by taking this medicine. It has been ſuppoſed of conſiderable efficacy as an emmenagogue; Riverius mentions a ſingular caſe of its powerful action in this way.[m] Dr. Cullen alſo informs us, that he has found it to ſucceed in this character in one or two inſtances; but that in many others, though repeatedly employed in large doſes, no good effect was produced.[n] Another quality for which Saffron has been eſteemed, is that of an antiſeptic; yet though, (according to the experiments of Sir John Pringle,[o]) it manifeſted the power of retarding the putrefactive proceſs of animal matter, we have no proof of its efficacy in this way on the living body, infected by a putrid diſeaſe. Saffron has alſo been employed as a diaphoretic, and for the purpoſe of throwing out variolous puſtles, and other exanthemata; but this practice ſeems to have originated from a miſtaken notion of the action of Saffron, as well as from a fallacious pathology, which is now utterly exploded. In ſhort, though the ſenſible qualities of this medicine are pretty conſiderable, it appears to us to poſſeſs no other power than ſimply that of an aromatic: and Dr. Cullen declares, that he "has not been more puzzled upon any occaſion, than in aſcertaining the medicinal qualities of this ſubſtance,"[p] ſo that the words of a very claſſical writer may ſtill be applied to it, though with a contrary view: "Nec poteris croci dotes numerare, nec uſus."

At preſent very little confidence is placed in this medicine, though it enters ſeveral officinal compoſitions. The Edinburgh College directs a tinctura croci, but that of London only retains a ſyrup of this drug.

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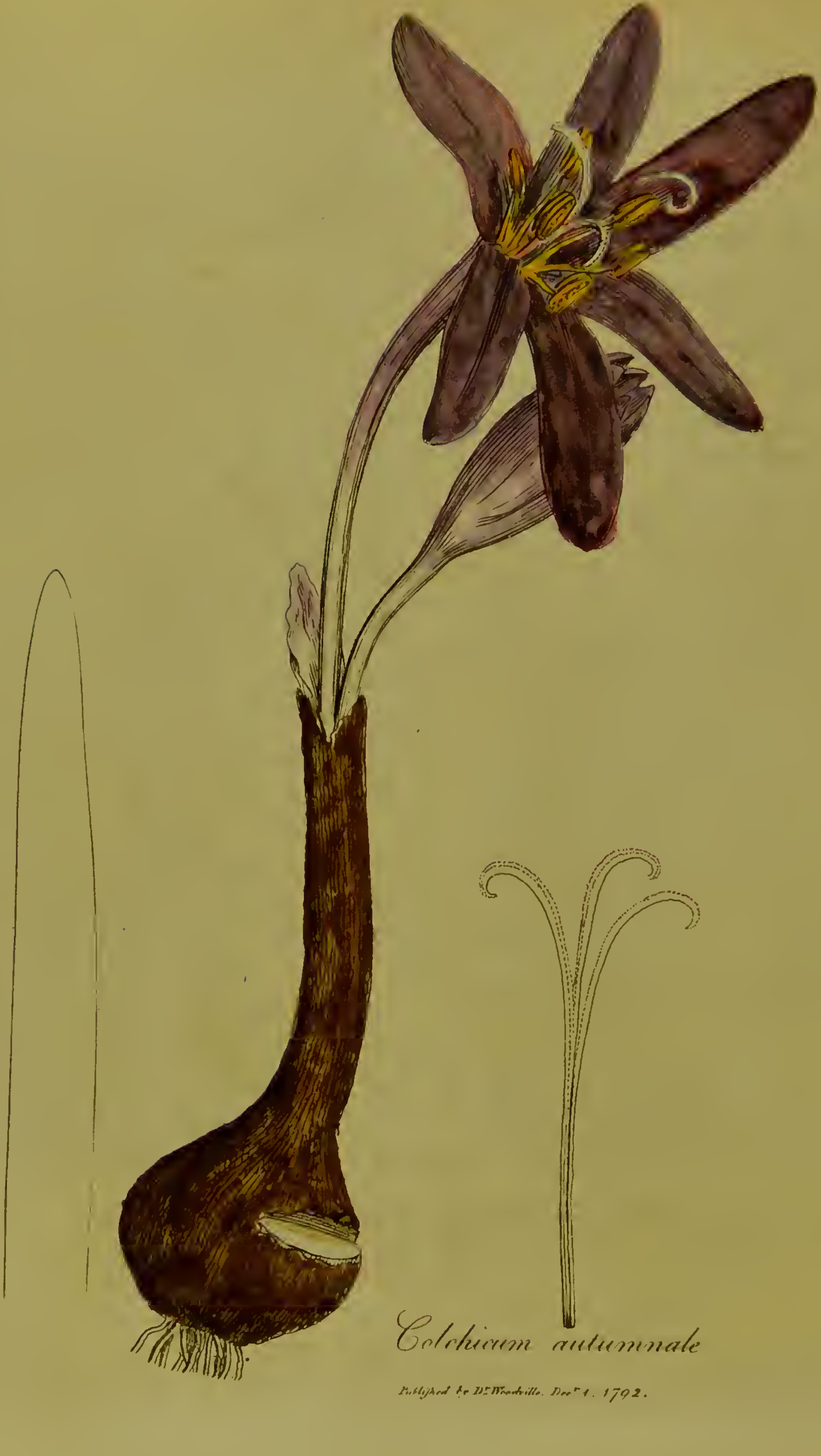
[m] *Opera ed. Horſt. p.* 136. [n] *Cullen, M. M. vol. ii. p.* 313.
[o] *Diſeaſes of the Army, App. p.* 20. [p] *L. c.*

COLCHICUM



Colchicum autumnale

Publiſhed by Dr. Woodville. Decr. 1. 1792.

COLCHICUM AUTUMNALE. COMMON MEADOW SAFFRON.

SYNONYMA. Colchicum. *Pharm. Lond. & Edinb.* Colchicum commune. *Bauh. Pin. p.* 67. *Raii Hiſt. p.* 1170. *Synop. p.* 373. Colchicum purpureum & Anglicum album. *Gerard Emac. p.* 157. *Park. Parad. p.* 153. Colchicum Flore folium longe præcedente, petalis ovatis. *Hall. Stirp. Helv. n.* 1255. C. autumnale. *Hudſon. Fl. Ang. p.* 136. *Ed.* 1762. *Light. Fl. Scot. p.* 192. *Withering. Bot. Arr. p.* 379. *Stoerck Lib. de Colch. autumn.*

Claſs Hexandria. *Ord.* Trigynia. *Lin. Gen. Plant.* 457.

Eſſ. Gen. Ch. *Cor.* 6-partita: tubo radicato. *Capſulæ* connexæ inflatæ.

Sp. Ch. C. foliis planis lanceolatis erectis.
α. Flore ſimplici. β. Flore pleno.

THE root is perennial, conſiſting of a ſolid double ſucculent bulb, covered with a brown membranous coat: the flower is large, of a purpliſh colour, and riſes immediately from the root upon a long naked tube,[a] like that of the Saffron: the leaves appear in the ſpring, and are numerous, radical, ſpear-ſhaped, one or two much narrower than the others: there is no calyx: the corolla is monopetalous, and divided into ſix lance-ſhaped large erect ſegments, of a pale purple colour: the filaments are ſix, tapering, white, much ſhorter than the corolla, and furniſhed with erect pointed yellow antheræ: the germen is lodged at the root, from which iſſue three ſlender ſtyles, reflexed at the top, and terminated by ſimple pointed ſtigmata: the capſule is three-lobed, divided into three cells, containing numerous ſmall globular ſeeds, which do not ripen till the ſucceeding ſpring, when the capſule riſes above the ground upon a ſtrong peduncle. It is a native of England, affecting meadow grounds of a rich ſoil,[b] and flowers in September.

[a] Hence it has been called *naked lady*.

[b] It is not ſo rare a plant as the Saffron.

The recent root of this plant has been received into the Materia Medica of both Pharmacopœias, on the recommendation of Baron Stoerck, who firſt thought of converting this acrid poiſon to the purpoſes of medicine.[c] Reſpecting its effects and ſenſible qualities, authors have given very different reports. Haller informs us, that he found this root perfectly void of taſte and acrimony.[d] Krapf likewiſe ſays, that he ate the whole bulbs without feeling any inconvenience, except that of an ungrateful bitteriſh taſte;[e] and Kratochvill gave this root with impunity to ſeveral in doſes of two, three, and even four drams;[f] while Stoerck tells us, that by gently rubbing the root againſt the tip of his tongue, it rendered the part rigid, and almoſt void of ſenſation, for ſeveral hours.[g] Ehrmann,[h] Marges,[i] Murray,[k] and ſeveral other writers, alſo bear teſtimony to the great acrimony of Colchicum; ſo that we can only reconcile theſe contradictory accounts by ſuppoſing theſe roots to vary much according to their age, the ſoil in which they grow, and probably ſtill more according to the ſeaſon of the year in which they are dug up. Baron Stoerck aſſerts, that on cutting the freſh root into ſlices, the acrid particles emitted from it irritated the noſtrils, fauces, and breaſt; and that the ends of the fingers with which it had been held, became for a time benumbed;[l] that even a ſingle grain in a crumb of bread, taken internally, produced a burning heat and pain in the ſtomach and bowels, urgent ſtrangury, teneſmus, colic pains, cephalalgia, hiccup, &c.[m] From this relation, it will not appear ſurpriſing that we find ſeveral inſtances recorded in which the Colchicum proved a fatal poiſon both to man[n] and brute animals.[o]

[c] The external uſe of this root, and the wearing it incloſed in a bag, ſuſpended about the neck, which was formerly practiſed for the purpoſe of preventing and curing peſtilential fevers, will hardly be thought an exception to this aſſertion. [d] *L. c. n.* 1256.

[e] *Cont. Experim. in Stoerck. p.* 233. [f] Vide *Kratochvill de Colch. p.* 35. [g] *Lib. de Colch. p.* 8. 9. [h] *Diſſ. de Colch. Baſil.* 1772. §. 5. [i] Vide *Journal de Med. tom.* 23. *p.* 32. *ſq.* [k] *App. Med. vol.* 5. *p.* 196. [l] *L. c. p.* 25. [m] *L. c. p.* 11.

[n] Two boys, after eating this plant, which they found growing in a meadow, died in great agony. *Jo. Agricola Ammonius, Medic. herbar. lib.* 1. *p.* 90. See alſo *Ludovici Opera, p.* 63. Violent ſymptoms have been produced by taking three of the flowers. *Garidel, Plantes d'Aix. p.* 123. The ſeeds likewiſe have been known to produce ſimilar effects. *Breſl. Samml.* 1723. *p.* 679. [o] Deer and oxen have fallen a ſacrifice to this poiſon; and according to Stoerck two drams of the root killed a dog in thirteen hours, and upon opening its abdomen, the ſtomach and bowels were found to be greatly inflamed, or in a gangrenous ſtate. *L. c. p.* 17.

From various obſervations on the effects of Colchicum made by Baron Stoerck, and eſpecially upon the infuſion of three grains of the freſh root in four ounces of wine, he remarked that its diuretic power was very conſiderable, and therefore concluded that if its deleterious acrimony were deſtroyed, it might prove in this character an efficacious medicine; accordingly he digeſted an ounce of the recent root ſliced in a pound of vinegar for forty-eight hours with a gentle heat; the vinegar being then ſtrained, it proved acrid to the taſte, conſtringed and irritated the fauces, and excited a ſlight cough; to obviate which, he mixed the vinegar with twice its weight of honey, and gently boiled it down to the conſiſtence of honey, forming an oxymel ſufficiently grateful, and which, taken in doſes of a dram, promoted a copious diſcharge of urine, without producing any inconvenience from its acrimony, though it moderately ſtimulated the fauces, and abſterged the mucus. Thus, like the ſquill, it was found both expectorant and diuretic; and the ſucceſsful uſe of this medicine in various hydropic diſorders in the hoſpital at Vienna, equalled the Baron's utmoſt expectations. He recommends, at firſt, a dram of the oxymel to be given twice a day in any ſuitable vehicle, and gradually to increaſe the doſe to an ounce or more in a day. Many other practitioners, who employed the oxymel colchici in theſe complaints, alſo experienced its good effects, eſpecially in Germany[p] and France,[q] where it continues to be a favourite medicine: in England, however, the Colchicum has been leſs ſucceſsful,[r] and is very generally thought a leſs efficacious diuretic than the ſquill, which excells it ſtill more as an expectorant. The London College, conformably to the practice of Stoerck, directs an oxymel colchici, and that of Edinburgh a ſyrup; the latter however differs from the former only in uſing ſugar inſtead of honey.

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[p] As Zach, Krapf, Plenck, Collin, Ehrmann, and others.

[q] We may here mention Marges, Planchon, Du Monceau, &c. &c.

[r] Vide *Med. Obſ. & Inq. vol.* 3. *præf.* See alſo *Monro's Eſſay on Dropſy, p.* 108.

RUMEX HYDROLAPATHUM. WATER DOCK.

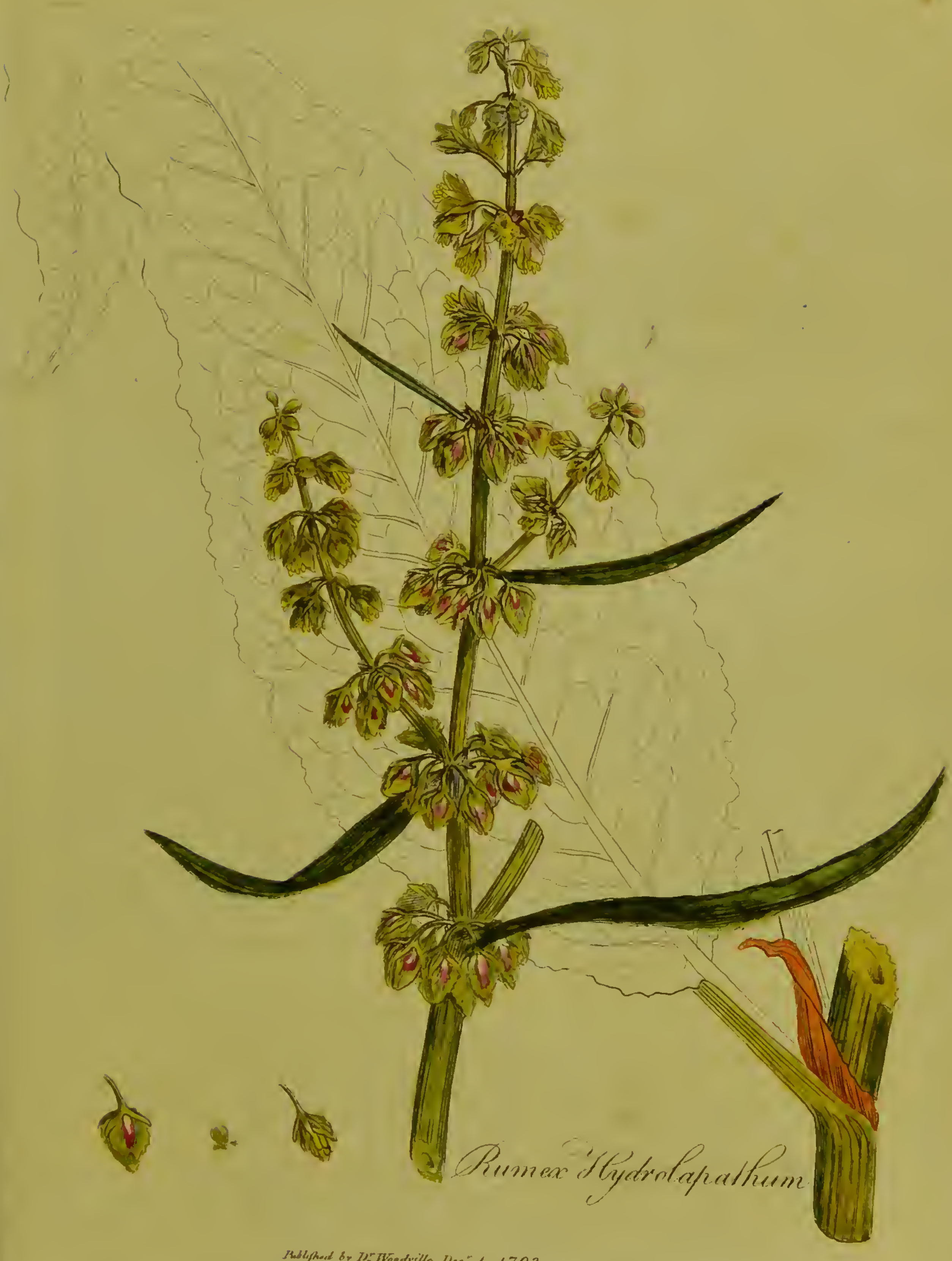
SYNONYMA. Hydrolapathum. *Pharm. Edinb.* Lapathum aquaticum, folio cubitali. *Bauh. Pin. p.* 116. Hydrolapathum magnum. *Gerard Emac. p.* 389. Hydrolapathum majus. *Park. Theat. p.* 1225. *Raii Hiſt. p.* 171. *Synop. p.* 140. §. 1. Lapathum foliis longè lanceolatis, paniculis denſiſſimis. *Hall. Stirp. Helv. n.* 1588. R. Hydrolapathum. *Hudſon. Flor. Ang. p.* 154. *Withering. Bot. Arr. p.* 374. *Relhan. Flor. Cant. p.* 149.

Claſs Hexandria. *Ord.* Trigynia. *Lin. Gen. Plant.* 451.

Eſſ. Gen. Ch. *Cal.* 3-phyllus. *Petala* 3, conniventia. *Semen* unicum triquetrum.

Sp. Ch. R. floribus hermaphroditis: valvulis integris graniferis, foliis lanceolatis acutis. *Hudſon, l. c.*

THE root is perennial, large, thick, externally black, internally whitiſh: the ſtem is erect, channelled, branched, green, and riſes about five feet in height: the upper leaves are long, narrow, and on the flower-ſpikes linear and pointed; thoſe at the bottom of the ſtem are near a foot and a half in length, of a narrow ovate form, ſomewhat indented at the edges, and ſtand upon long ſtrong channelled footſtalks: the flowers are numerous, and hang in whorled ſpikes upon ſlender peduncles: the calyx is divided into three narrow pointed permanent ſegments: the corolla conſiſts of three petals, which are ovate, narrow, pointed: the ſtamina are ſix, ſhort, ſlender, and furniſhed with erect double antheræ: the germen is turban-ſhaped, triangular, and ſupports three reflexed ſtyles, terminated by rough glandular ſtigmata: the capſule is formed of the three petals, which by approaching each other aſſume a triangular form, and in this ſtate are



Rumex Hydrolapathum

Publiſhed by Dr. Woodville Decr. 1. 1792.

are called *valves;* theſe are very large, ovate, pointed, ſlightly notched towards the baſe, and furniſhed with an oblong grain, extending down the middle of each valve: the ſeed is ſolitary, ovate, triangular. It is a native of England, growing in ditches, pools, and rivers, and flowers in July and Auguſt.

The Hydrolapathum of the Edinburgh Pharmacopœia is referred to the R. aquaticus of Linnæus, which is ſuppoſed to be a different ſpecies from the Hydrolapathum of Mr. Hudſon,[a] though the ſame ſynonyms are aſcribed to both. The plant here repreſented, which was found in the river Rodon, near Woodford Bridge, by having toothed valves, does not agree with the ſpecific characters given by either of theſe authors; but it ſeems to correſpond exactly with the deſcription of it ſubjoined by Dr. Withering.[b]

The root, which is the part of this plant directed for medicinal uſe, has a ſtrong auſtere taſte, and readily ſtrikes a black colour to a ſolution of ferrum vitriolatum, and yields its active matter both to water and to rectified ſpirit.

Many of the Lapatha[c] were formerly officinal herbs, of which the Water Dock has been eſteemed to be the moſt efficacious, and by the Edinburgh College is ſtill retained in the Materia Medica: the leaves, which manifeſt conſiderable acidity, are ſaid to poſſeſs a laxative quality, and have therefore been uſed to obviate coſtiveneſs: the roots are ſtrongly aſtringent, and have been much employed both externally and internally for the cure of ſcurvy;[d] eſpecially when the gums are ſpongy, and frequent hæmorrhages ſupervene. It is alſo recommended in various other cutaneous defœdations, and in viſceral obſtructions: and in order to give the Hydrolapathum additional importance, Muntingius has taken great pains to prove that it is the *Herba Britannica* of the ancients;[e] but many phyſicians ſtill think this root does not peculiarly differ from other aſtringents, and are ſceptical enough to place no faith in the great virtues aſcribed to it by Muntingius and Sir John Hill.

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[a] *L. c.* [b] *L. c.*

[c] From λαπαζω, evacuo λαπτω, idem. Alſton.

——— Si dura morabitur alvus,
Mitulus & viles pellent obſtacula conchæ
Et Lapathi brevis herba. HORAT. SAT. 4. lib. 2. v. 27.

[d] Linnæus ſpeaks highly of its uſe. Vide *Amœn. vol.* 4. *p.* 38. *Flor. Suec. p.* 118. And in *Lind's Treatiſe on the Scurvy, p.* 264.

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[e] *Diſſ. Hiſt. Med. de vera herba Britannica.* See *Dioſ. l.* 4. *c.* 2. *Plin. lib.* 25. *c.* 3.

The powdered root is ſaid by Murray to be an excellent dentrifice. *App. Med. vol.* 3. *p.* 344.

PIMPINELLA SAXIFRAGA. SMALL BURNET-SAXIFRAGE.

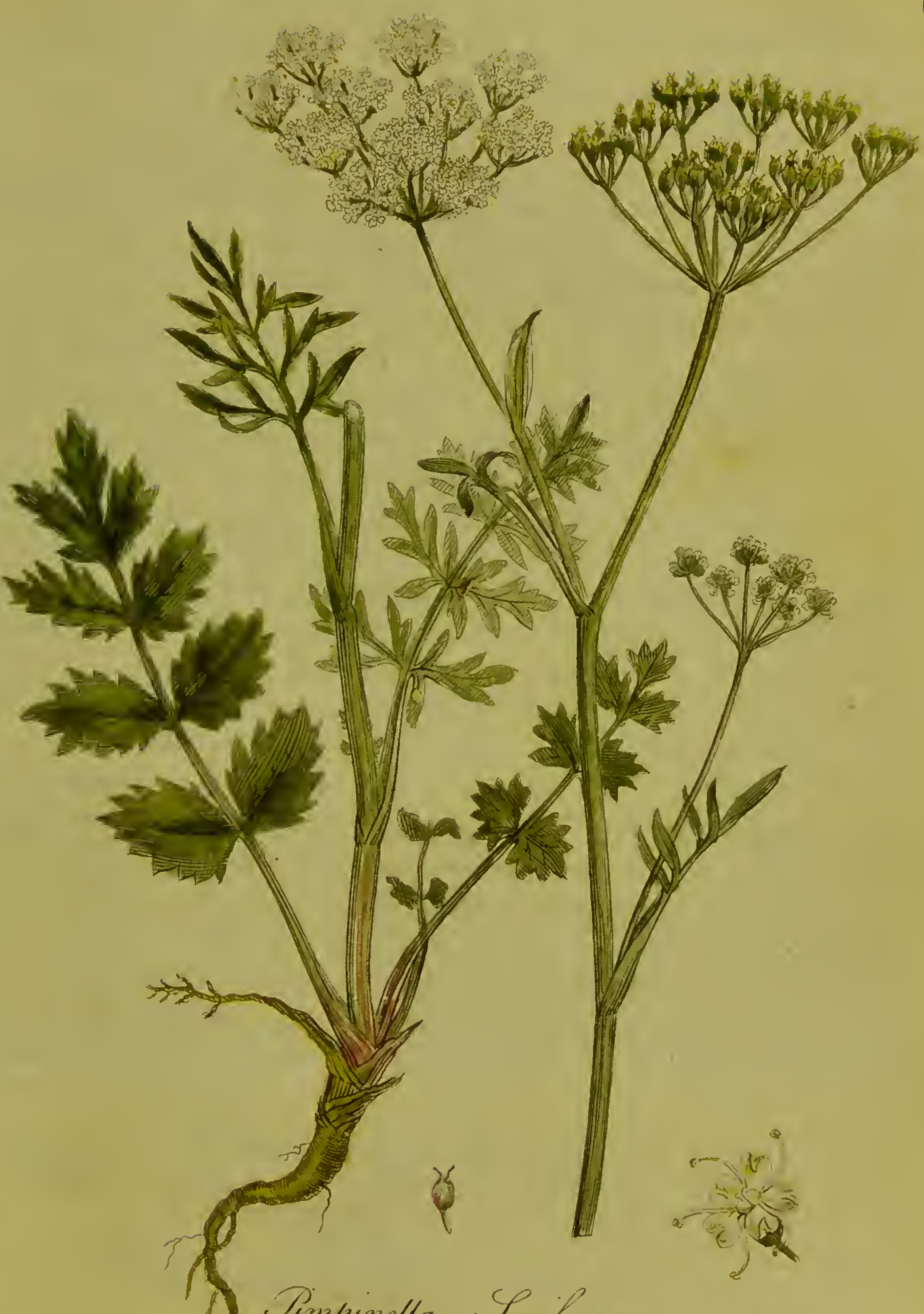
SYNONYMA. Pimpinella. *Pharm. Edinb.* Pimpinella ſaxifraga minor. *Bauh. Pin. p.* 160. Pimpinella ſeu ſaxifraga minor. *Gerard. Emac. p.* 1044. Saxifraga hircina minor. *Park. Theat. p.* 947. *Raii Hiſt. p.* 445. *Synop. p.* 213. Tragoſelinum foliis pinnatis, pinnis ovatis. *Hall. Stirp. Helv. n.* 786. P. Saxifraga. *Hudſon. Flor. Ang. p.* 127. *Lightfoot. Flor. Scot. p.* 169. *Withering. Bot. Arr. p.* 313. *Relhan. Flor. Cant. p.* 124. *Ic. Flor. Dan.* 395. *Flor. Dan.* 669.

Claſs Pentandria. *Ord.* Digynia. *Lin. Gen. Plant.* 366.

Eſſ. Gen. Ch. *Fructus* ovato-oblongus. *Petala* inflexa. *Stigmata* ſubgloboſa.

Sp. Ch. P. foliis pinnatis: foliolis radicalibus ſubrotundis; ſummis linearibus.

THE root is perennial, ſpindle-ſhaped, whitiſh: the ſtem is erect, round, ſcored, downy, jointed, towards the top a little branched, and riſes above a foot in height: the leaves are variouſly ſhaped, pinnated, alternate; on the upper part of the ſtem they divide into ſimple linear



Pimpinella Saxifraga

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linear laciniæ; toward the bottom the pinnæ are broader, and at the root roundiſh, and deeply indented at the edges: the flowers are white, and ſtand in umbels, which are terminal, flat, conſiſting of twelve radii or more, both in the general and partial umbels: there is no involucrum: the proper corolla conſiſts of five petals, which are ovate, and bent inwards at their extremities: the filaments are white, tapering, ſpreading, and furniſhed with roundiſh antheræ: the germen is egg-ſhaped, ſtriated, and upon it is placed a white fleſhy double nectarium: the two ſtyles are ſhort, white, and furniſhed with ſimple ſtigmata: the ſeeds are naked, furrowed, egg-ſhaped. It is a native of this country, and grows in dry meadows and paſtures: the flowers appear in Auguſt and September.

Several ſpecies of Pimpinella were formerly officinally uſed, of which the P. magna, and the ſpecies repreſented in the annexed plate, were the principal; in their medicinal qualities however theſe are found to have no remarkable difference.* The roots, which obtain a place in the Materia Medica of the Edinburgh Pharmacopœia, have an unpleaſant ſmell, and a hot pungent bitteriſh taſte:† on drying, or on being long kept, their pungency is conſiderably diminiſhed. Their virtue is extracted partially by water, and completely by rectified ſpirit. When large quantities of the root are diſtilled with water, a ſmall portion of eſſential oil, extremely acrid and fiery, may be obtained.[a]

Bergius ſtates the virtues of this root to be reſolvent, diaphoretic, ſtomachic, and diuretic.[b] It is recommended by ſeveral writers[c] as a ſtomachic, and in all caſes where pituitous humours are thought to prevail, as aſthmas, dropſies, catarrhal coughs, hoarſeneſſes, and what has been called angina ſeroſa; and by Hoffmann[d] it is ſaid to be an excellent emmenagogue. In the way of gargle it has been employed for diſſolving viſcid mucous, and to ſtimulate the tongue, when that organ becomes paralytic.

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* *Murray*, *App. Med. vol. i. p.* 295.

† Hence chewing it is recommended to relieve the tooth-ach.

[a] *Lewis*, *Mat. Med. p.* 502.

[b] *M. M. p.* 230.

[c] Eſpecially German Phyſicians.

[d] *Med. off. p.* 533.

Pimpinella formerly entered the officinal pulvis ari, and like the arum it appears to be an acrid ſtimulant; but how far this quality renders it fit for the cure of the above-mentioned diſorders, we leave to the conſideration of others. It may be given in doſes of a ſcruple in ſubſtance, and in infuſion to two drams.

PIMPINELLA ANISUM. ANISE.

SYNONYMA. Aniſum. *Pharm. Lond.* & *Edinb.* *Gerard. Emac. p.* 1035. *Park. Theat. p.* 911. *Raii Hiſt. p.* 450. Aniſum herbariis. *Bauh. Pin. p.* 159. Aniſum vulgare. *Clus. Hiſt. ii. p.* 202. Aniſum vulgatius minus annuum. *Hiſt. Ox. iii. p.* 297.

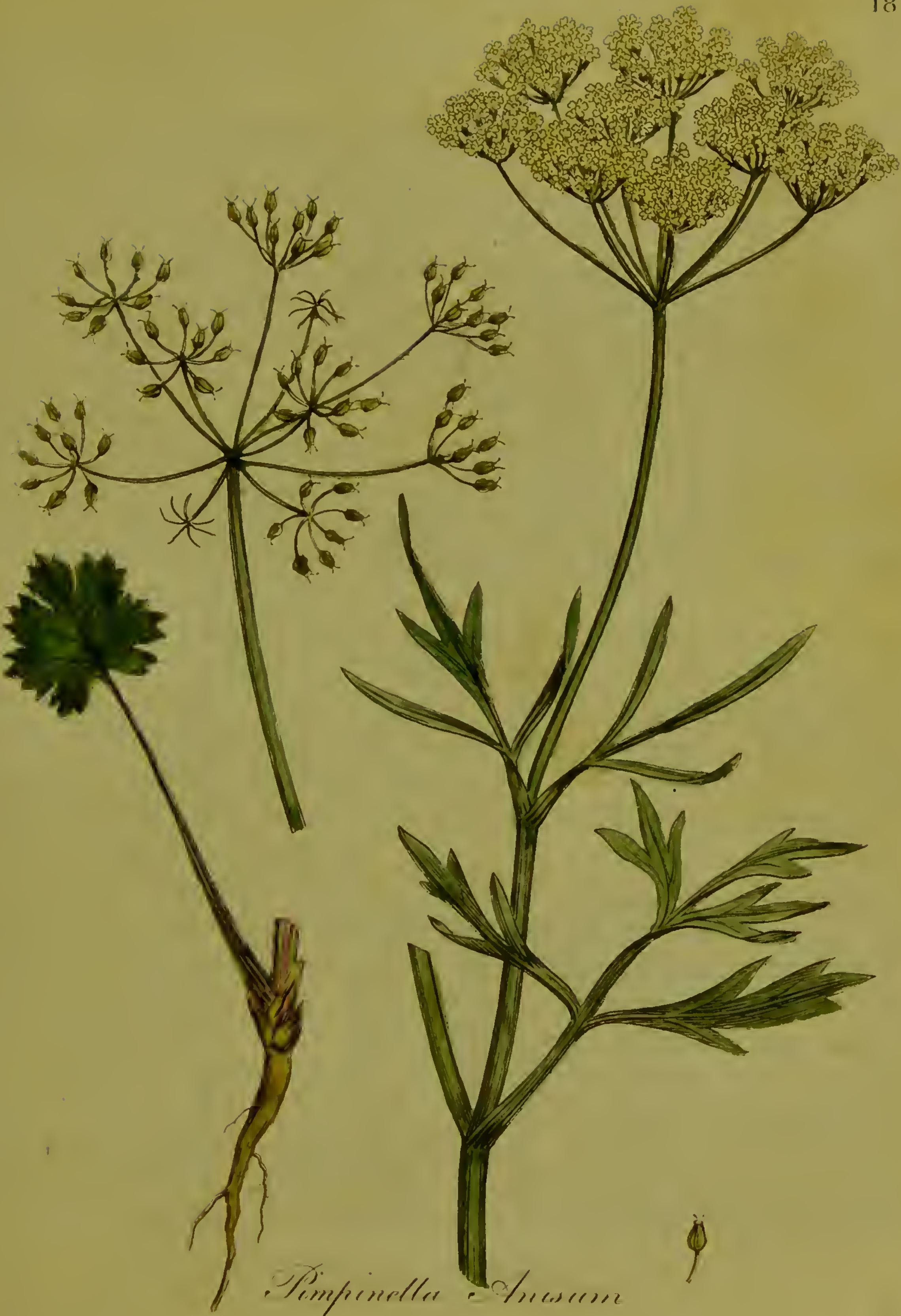
Claſs Pentandria. *Ord.* Digynia. *Lin. Gen. Plant.* 366.

Eſſ. Gen. Ch. *Fructus* ovato-oblongus. *Petala* inflexa. *Stigmata* ſubgloboſa.

Sp. Ch. P. foliis radicalibus trifidis inciſis.

THE root is annual, tapering: the ſtem is upright, branched, ſtriated, jointed, ſmooth, and riſes about a foot in height: the leaves on the upper part of the ſtem are divided into narrow pinnated ſegments, but at the bottom they are roundiſh, ſeparated in three or five indented lobes, and ſtand upon ſcored ſheath-like footſtalks: the flowers are ſmall, white, and placed in umbels, which are terminal, flat, conſiſting of ſeveral general and partial radii, without involucra: the parts of infloreſcence reſemble thoſe of the P. Saxifraga; therefore need not be repeated here. It is a native of Egypt, and flowers in July.

The Aniſe was cultivated here in the time of Turner, (1551) but our ſummers are ſeldom warm enough to bring the plant to perfection. The ſeeds, according to Miller, are annually imported here from Malta and Spain, where the Aniſe is chiefly cultivated. Savary alſo informs us,



Pimpinella Anisum

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us, that "the Malteſe and Alicant Aniſe is moſt eſteemed, though not ſo green as the French;" and the Spaniſh Aniſeeds are eaſily diſtinguiſhed from thoſe of France and Germany, by being much ſmaller.

Aniſeeds have an aromatic ſmell, and a pleaſant warm taſte, accompanied with a conſiderable degree of ſweetneſs. "They totally give out their virtue to rectified ſpirit.—The ſpirit, diſtilled off from the filtered tincture, has a light taſte of the ſeeds, but leaves far the greateſt part of their virtue behind in the extract.—Infuſed in water, they impart a little of their ſmell, but ſcarcely any taſte: in diſtillation they give out the whole of their flavour."—"Along with the water ariſes an eſſential oil, to the quantity of an ounce or more from three pounds."

"This oil, in colour yellowiſh, congeals, even when the air is not ſenſibly cold, into a butyraceous white concrete. Its ſmell, which exactly reſembles that of the Aniſeeds, is extremely durable and diffuſive; its taſte is milder and leſs pungent than that of almoſt any other diſtilled vegetable oils."

"Theſe ſeeds yield an oil likewiſe upon expreſſion, of a greeniſh colour, in taſte grateful, and ſtrongly impregnated with the flavour of the ſeeds: ſixteen ounces, lightly moiſtened by expoſure to the ſteam of boiling water, are ſaid to afford one ounce. This oil is compoſed of a groſs inſipid, inodorous one, of the ſame nature with the common expreſſed oils; and a part of the eſſential oil of the ſeed, on which the flavour depends."[a]

The ſeeds of Aniſe, which are ranked among the four greater hot ſeeds, have been long medicinally employed by phyſicians as an aromatic and carminative, in preference to thoſe of moſt of the other umbelliferous plants; they have alſo been eſteemed uſeful in pulmonary complaints, and to poſſeſs, like thoſe of fennel, a power of promoting the ſecretion of milk. Their chief uſe however is in flatulencies, and in the gripes, to which children are more eſpecially liable; and they are uſefully combined with ſuch purgatives as are apt to produce theſe effects. Weakneſs of the ſtomach, diarrhœas, and loſs of tone in the primæ viæ, are likewiſe complaints in which Aniſeeds are ſuppoſed to be peculiarly uſeful; and hence by V. Helmont they were called *Solamen inteſtinorum.*

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[a] *Lewis, M. M. p.* 62.

The eſſential oil,* which is the only officinal preparation of Aniſeeds now directed by the Pharmacopœias, is uſually grateful to the ſtomach, and may be taken in the doſe of twenty drops. In diſeaſes of the breaſt, the oil is preferred, but in flatulencies and colics the ſeeds in ſubſtance are ſaid to be more effectual.[c]

CORIANDRUM SATIVUM. COMMON CORIANDER.

SYNONYMA. Coriandrum. *Pharm. Lond. & Edinb. J. Bauh. vol. iii. p.* 89. *Gerard. Emac. p.* 1012. *Raii Hiſt. p.* 470. *Synop. p.* 221. *Hall. Stirp. Helv. n.* 764. Coriandrum majus. *Bauh. Pin. p.* 158. Coriandrum vulgare. *Park. Theat. p.* 918. C. ſativum. *Hudſon. Flor. Ang. p.* 123. *Withering. Bot. Arr. p.* 302. *Sowerby's Engliſh Botany, p.* 67. Κοριον vel Κοριαννον *Dioſcorid.* Κοριανον. *Theophr.*

Claſs Pentandria. *Ord.* Digynia. *Lin. Gen. Plant.* 356.

Eſſ. Gen. Ch. Cor. radiata: *Petala* inflexo-emarginata. *Involucr. univerſale* 1-phyllum: *Partialia* dimidiata. *Fructus* ſphæricus.

Sp. Ch. C. Fructibus globoſis.

THE root is annual: the ſtalk is erect, branched, round, ſmooth, of a glaucous tinge, and riſes about two feet in height: the leaves are variouſly pinnated; thoſe of the upper part of the ſtalk are divided into narrow linear alternate pointed ſegments; thoſe at the bottom are cut into irregular ſerrated lobes, reſembling the leaves of common

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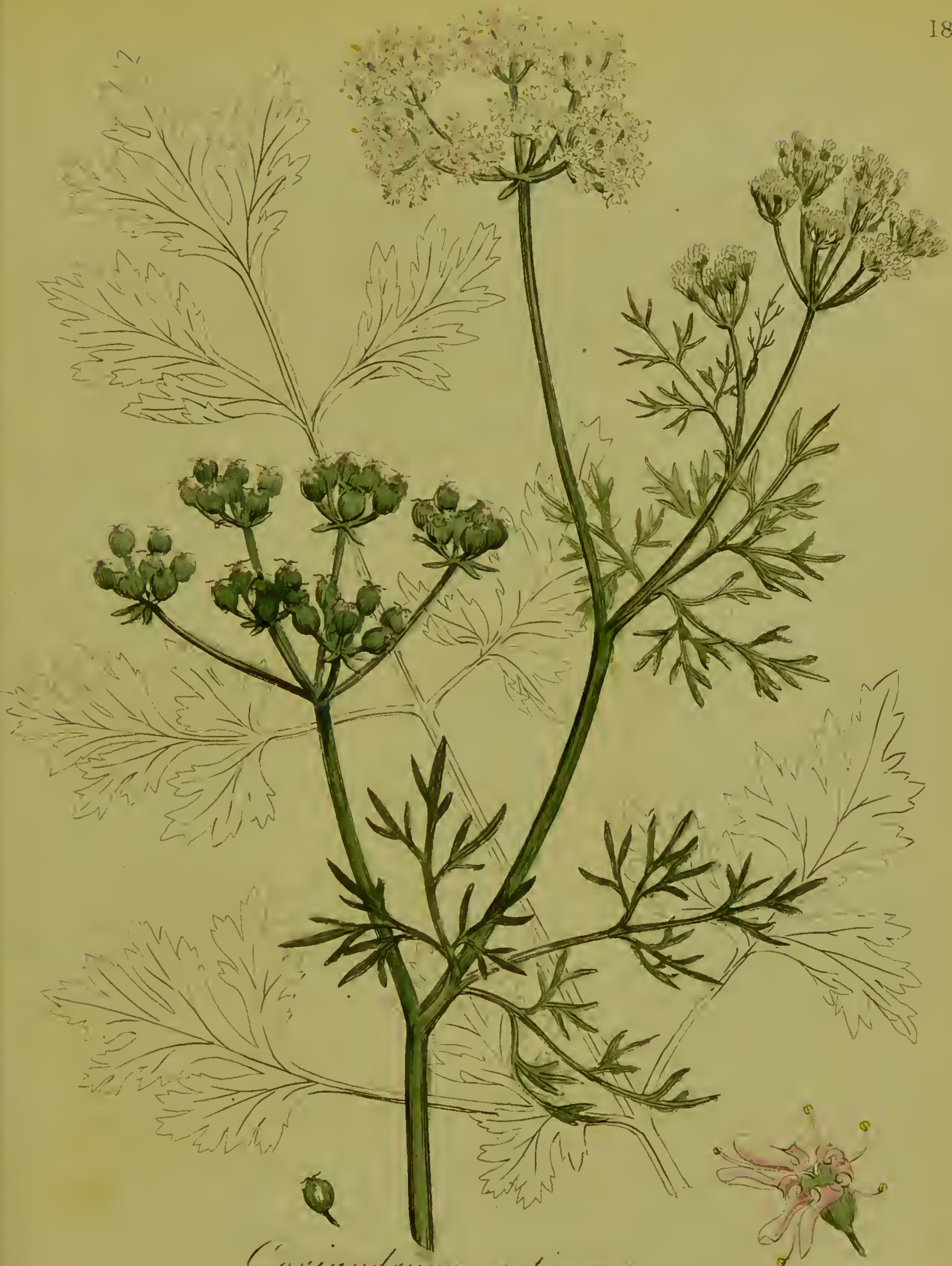
* It is aſſerted, that this oil proves a poiſon to pigeons, Oleum Aniſi præſentaneum eſt venenum columbis, ſi paucæ guttulæ ipſarum roſtro inſtillentur & capiti infricentur, ut obſervavit RUD. A. VOGEL. (Hiſt. Mat. Med. 161) & coiifirmavit P. (Stralſund. Mag. p. i. p. 56.) Vide *Bergius, M. M. p.* 232.

[c] *Lewis. l. c.*



Coriandrum sativum

Publiſhed by Dr. Woodville, Jany. 1. 1793.

mon parſley: the flowers are white, or reddiſh, and placed in terminal umbels, appearing in June: the partial umbels are compoſed of more radii than the general, and each is furniſhed with an involucrum of three narrow leaves; but the general involucrum is commonly wanting, or compoſed of a ſimple leafit: the general corolla is irregular in its ſhape, and unequal: the petals are five, oblong, bent inwards, and at the circumference the outermoſt are the largeſt: the filaments are five, ſlender, and furniſhed with roundiſh yellow antheræ: the germen is globular, placed below the inſertion of the corolla, and ſupports two ſhort ſtyles, bent in oppoſite directions, and terminated by ſimple ſtigmata: the fruit is globular, and diviſible into two hemiſpherical concave ſeeds.

This plant is a native of the South of Europe, where in ſome places it is ſaid to grow in ſuch abundance, as frequently to choke the growth of wheat and other grain.[a] From being cultivated here as a medicinal plant, it has for ſome time become naturalized to to this country,[b] where it is uſually found in corn fields, the ſides of roads, and about dunghills.

Every part of the plant, when freſh, has a very offenſive odour,* but upon being dried the ſeeds have a tolerably grateful ſmell, and their taſte is moderately warm, and ſlightly pungent. "They give out their virtue totally to rectified ſpirit, but only partially to water. In diſtillation with water, they yield a ſmall quantity of a yellowiſh eſſential oil, which ſmells ſtrongly and pretty agreeably of the Coriander."[c]

Dioſcorides[d] aſſerts, that theſe ſeeds, when taken in a conſiderable quantity, produce deleterious effects; and in ſome parts of Spain and Egypt, where the freſh herb is eaten as a cordial, inſtances of fatuity, lethargy, &c. are obſerved to occur very frequently;[e] but theſe qualities ſeem to have been unjuſtly aſcribed to the Coriander; and Dr. Withering informs us, that he has "known ſix drams of the ſeeds taken at once without any remarkable effect."[f]

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[a] See Murray, *App. Med. vol. i. p.* 278. [b] See *Engliſh Botany*, *p.* 67.

* "Coriander was probably ſo called from κορις cimex, becauſe the green herb, ſeed and all, ſtinks intolerably of bugs." Alſton. *Lect. on the M. M. vol. ii. p.* 349.

[c] *Lewis*, *M. M. p.* 253.

[d] "Si largius ſumptum fuerit ſemen, mentem, non ſine periculo, e ſua ſede & ſtatu demovet." And again, "Coriandrum propter odorem latere non poteſt: epotum vocis raucitatem facit, atque inſaniam, qualis ex vinolentia proficiſcitur, ita ut qui ſumpſere varia dictu pudenda blatterant: toto vero corpore coriandri odor ſe prodit." *L.* 3. *c.* 71.

[e] Vide *C. Hoffmann. Med. Off. p.* 241.

Theſe ſeeds, like thoſe laſt mentioned, and indeed thoſe of moſt of the umbelliferous plants, poſſeſs a ſtomachic and carminative power. They are directed in the infuſum amarum, the infuſum ſennæ tartariſatum, and ſome other compoſitions of the Pharmacopœias; and according to Dr. Cullen, the principal uſe of theſe ſeeds is, "that, infuſed along with ſenna, they more powerfully correct the odour and taſte of this than any other aromatic that I have employed; and are, I believe, equally powerful in obviating the griping that ſenna is very ready to produce."[g]

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[f] *Withering, l. c.*

[g] *Mat. Med. vol. ii. p.* 158.

SIUM NODIFLORUM. CREEPING WATER PARSNEP.

SYNONYMA. Sium. *Pharm. Lond.* Sium aquaticum procumbens, ad alas floridum. *Moris. Hiſt. iii. p.* 283. *ſ.* 9. *t.* 5. *f.* 3. *Petiv. t.* 26. *f.* 3. Sium umbellatum repens. *Gerard. Emac. p.* 256. *Raii Synop. p.* 211. *Hiſt.* 444. Sium foliis radicalibus ovatis, pinnatis, dentatis; caulinis appendiculatis; umbellis alaribus. *Hall. Stirp. Helv. n.* 778. S. nodiflorum. *Hudſon. Flor. Ang. p.* 119. *Withering. Bot. Arr. p.* 292. *Lightfoot. Flor. Scot. p.* 161. *Relhan. Flor. Cantab. p.* 116.

Claſs Pentandria. *Ord.* Digynia. *Lin. Gen. Plant.* 348.

Eſſ. Gen. Ch. *Fructus* ſubovatus, ſtriatus. *Involucrum* polyphyllum, *Petala* cordata.

Sp. Ch. S. foliis pinnatis, umbellis axillaribus ſeſſilibus.

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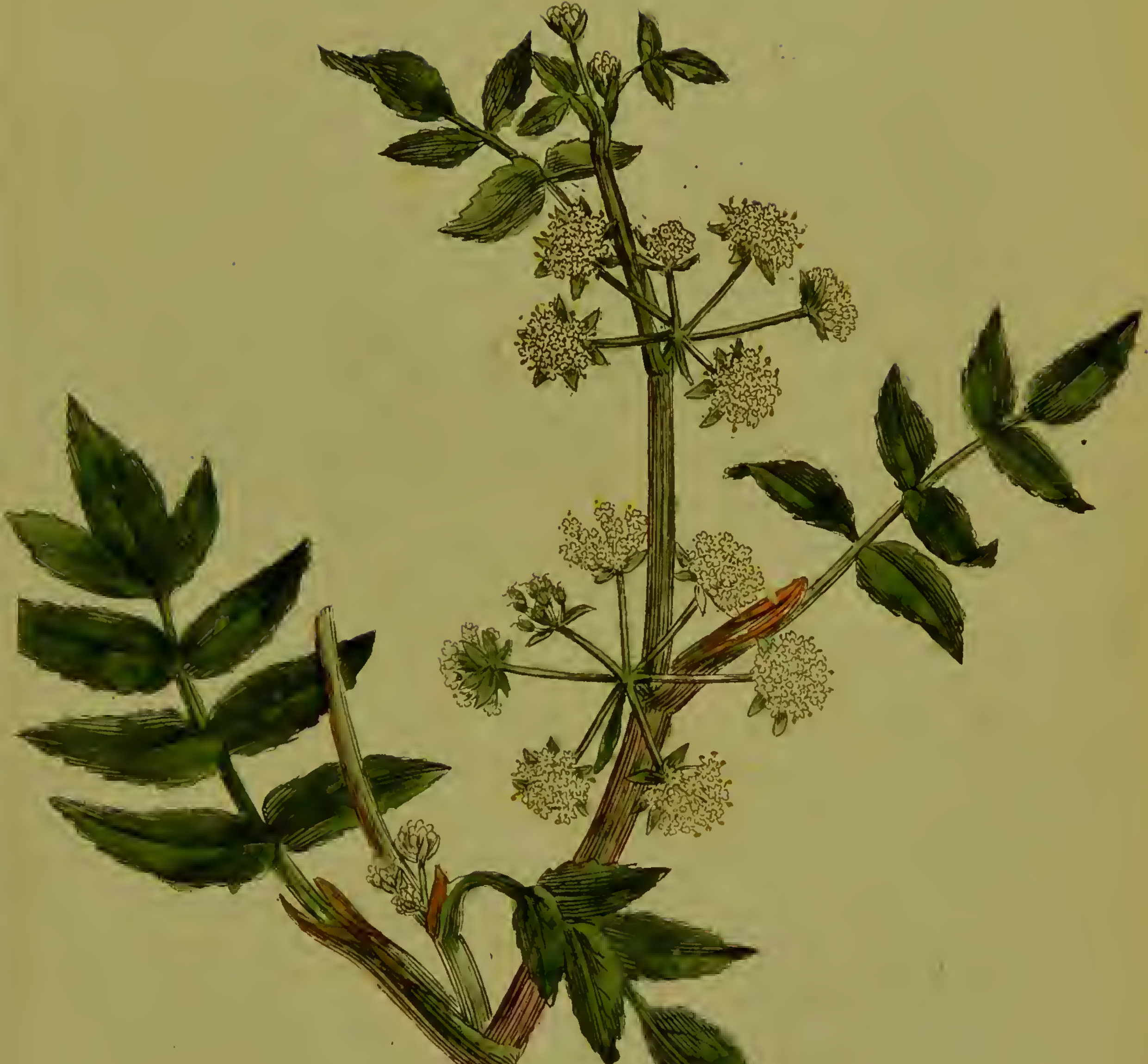

Sium nodiflorum

Publiſhed by Dr. Woodville Jan.y 1. 1793.

THE root is perennial, long, creeping, and hung with numerous fibres: the ſtem is jointed, thick, ſucculent, ſcored, procumbent, branched, and ſeldom reaches a foot in length: the leaves are pinnated, conſiſting of three or four pairs of pinnæ, terminated by an odd one; the pinnæ or ſegments are ovate, pointed, ſerrated, ſeſſile: the flowers are ſmall, and ſtand in axillary umbels, which are compoſed of from ſix to nine general radii, and about an equal number of partial radii: there is no general involucrum, but the partial one conſiſts of five, ſix, or ſeven ovate pointed leafits: the corolla is compoſed of five petals, which are entire, ovaliſh, white, largeſt at the circumference, and bent inwards at their apices: the five filaments are ſlender, ſpreading, rather longer than the corolla, and furniſhed with roundiſh antheræ: the germen is ſmall, placed beneath the corolla, and ſupports two ſlender reflexed ſtyles, terminated by blunt ſtigmata: the fruit is egg-ſhaped, ſmall, ſcored, diviſible into two ſeeds, which are flat on one ſide, on the other convex and ſcored. It is common in rivers and ditches, and flowers in July and Auguſt.

This plant is not admitted into the Materia Medica of any of the Pharmacopœias which we have ſeen, except that of the London College, where it has lately been received in the character of an antiſcorbutic, or rather as a corrector of acrid humours, eſpecially when manifeſted by cutaneous eruptions and tumours in the lymphatic ſyſtem, for which we have the teſtimony of Beirie[b] and Ray.[c] But the beſt proofs of its efficacy are the following given by Dr. Withering: "A young lady, ſix years old, was cured of an obſtinate cutaneous diſeaſe, by taking three large ſpoonfuls of the juice twice a day: and I have repeatedly given to adults three or four ounces every morning, in ſimilar complaints, with the greateſt advantage. It is not nauſeous, and children take it readily if mixed with milk. In the doſe I have given it, it neither affects the head, the ſtomach, nor the bowels."[a]

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[a] See *l. c.*

[b] *Dict. de la Mat. Med.*

[c] *Synop. p. 213.*

CITRUS AURANTIUM. ORANGE-TREE.

SYNONYMA. Aurantium * hiſpalenſe. *Pharm. Lond. & Edinb.* Malus Arantia major. *Bauh. Pin. p.* 436. Malus Aurantia. *Gerard. Emac. p.* 1463. *Raii Hiſt. p.* 1658. Aurantium vulgare. *Ferrar. Heſp. p.* 377. *t.* 369. Malus Aurantia vulgaris. *Park. Theat. p.* 1508. *Ic. Miller Illuſt. & Regnault Botanique,* L'Oranger.

α Malus Arantia major. *Bauh. l. c.* *Seville Orange-Tree.*
β Malus Arantia, cortice dulci eduli. *Bauh. l. c.* *China Orange-Tree.*

Claſs Polyadelphia. *Ord.* Icoſandria. *Lin. Gen. Plant.* 901.

Eſſ. Gen. Ch. *Cal.* 5-fidus. *Petala* 5, oblonga. *Antheræ* 20, filamentis connatis in varia corpora. *Bacca* 9-locularis.

Sp. Ch. C. petiolis alatis, foliis acuminatis.

THIS handſome evergreen riſes ſeveral feet in height, ſending off many branches, and covered with a greyiſh bark: the leaves are nearly elliptical, pointed, ſmooth, entire, of a ſhining green colour, and ſtand upon ſtrong winged footſtalks: the flowers appear during the whole ſummer, and are large, white, and ariſe from the ſmaller branches upon ſimple and branched peduncles: the calyx is ſaucer-ſhaped, and cut at the brim into five ſmall pointed teeth: the petals are five, oblong, white, concave, and beſet with ſmall glands: the filaments are about twenty, united at the baſe in three or more diſtinct portions, and furniſhed with yellow antheræ, placed vertically: the germen is roundiſh, ſupporting a cylindrical ſtyle, terminated by a globular ſtigma: the fruit is ſo well known, as not to require our deſcription of it here.

This tree, according to Mr. Aiton,[a] is a native of India; but it has been long cultivated in the warmer parts of Europe, and the fruit

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* Aurantium has been ſuppoſed by ſome to be derived ab aureo colore corticis fructus; by others, Arantium, ab oppido Achaiæ. See *C B. l. c.* Alſo *Ray l. c.*

[a] *Hort. Kew. vol. iii. p.* 101.

brought

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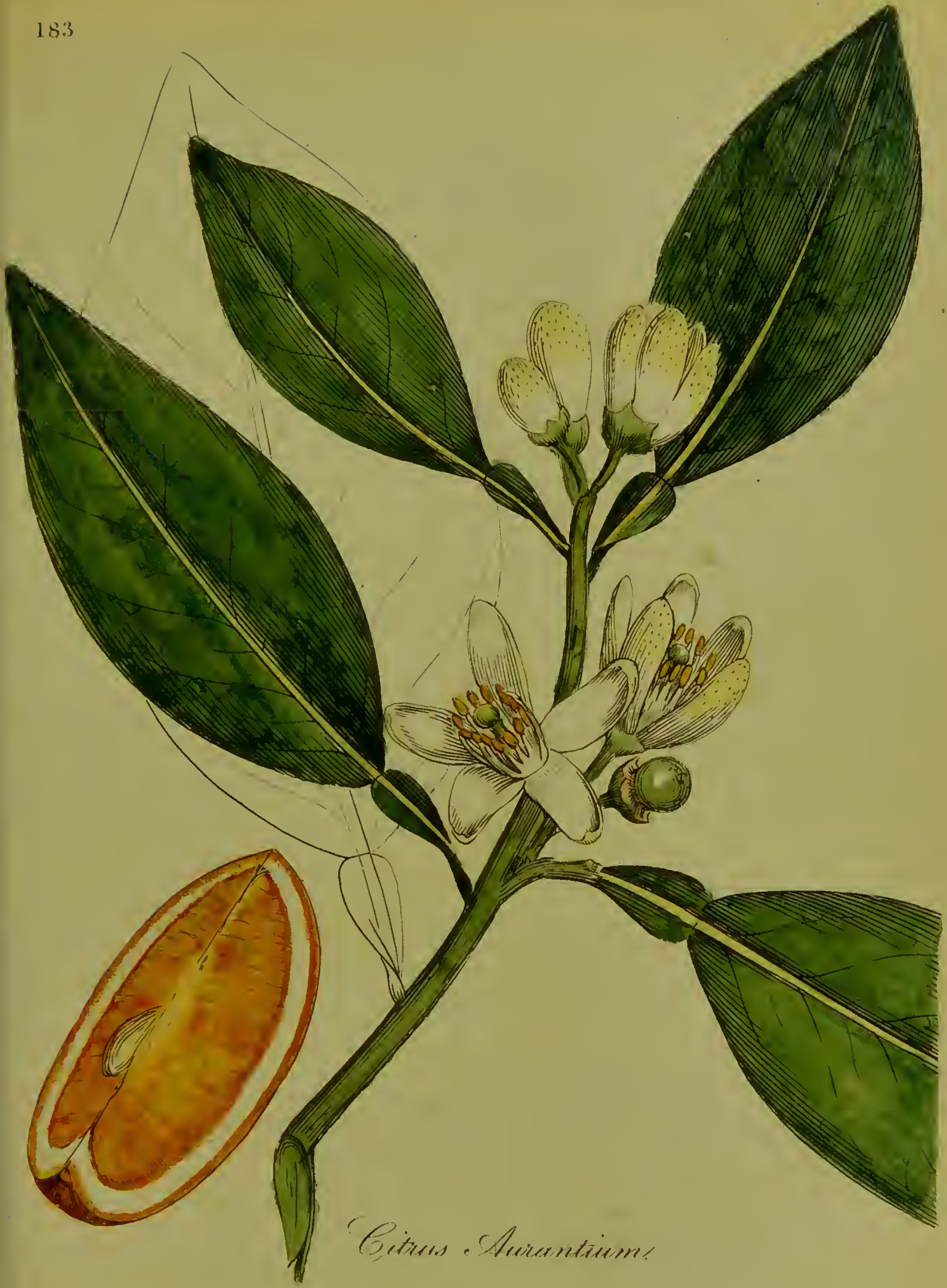

Citrus Aurantium.

Publiſhed by Dr. Woodville. Jan.ry 1. 1793.

brought to us is chiefly the produce of Spain and Portugal. Since the time of Parkinſon,[b] Orange-trees have been propagated here as ornamental green-houſe ſhrubs; but in this country the fruit rarely arrives at the perfection of that which is imported from Spain.

The China Orange, and Seville Orange, are both varieties of the ſame ſpecies; but it is only the latter which has a place in the Materia Medica of our Pharmacopœias, in which not only the juice and exterior yellow rind of this fruit are directed for medicinal uſe, but alſo the leaves and flowers.

The juice is a grateful acid liquor, which, by allaying heat, quenching thirſt, promoting various excretions, and diminiſhing the action of the ſanguiferous ſyſtem, proves of conſiderable uſe in all febrile and inflammatory diſorders. It is alſo a powerful antiſeptic, and of great efficacy in preventing and curing the ſcurvy.[c] Though what is here obſerved relates to the juice of the Seville Orange, yet that of the China, by being united with a larger proportion of ſaccharine matter, is more agreeable to the taſte, therefore moſtly preferred, and may be taken more freely. Theſe acids, by uniting with the bile, are ſaid to take off its bitterneſs; hence Dr. Cullen thinks it "probable, that acid fruits taken in are often uſeful in obviating the diſorders that might ariſe from the redundancy of bile, and perhaps from the acrid quality of it. On the other hand, however, if the acids are in greater quantity than can be, or are, properly corrected by the bile preſent, they ſeem, by ſome union with that fluid to acquire a purgative quality, that gives a diarrhœa, and the colic pains that are ready to accompany the operation of every purgative."[d]

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[b] 1629, ſee *Park. Parad. p.* 584.

[c] See *Lind on Scurvy, p.* 163.

The practice of evaporating this juice, or making it into what has been called a rob, in order to preſerve it a length of time on ſhip board, has been recommended; but Dr. Cullen ſays, "in many trials which I have made, I could not exhale it to ſuch a conſiſtence as would preſerve it without addition, without my finding the acid a good deal changed. It acquires an acerbity and ſtipticity that does not allow it to be readily diffuſed in water; and I ſuſpect it is not ſo readily miſcible with the animal fluids as in its entire ſtate. From Forſter's obſervations in the voyage round the world, it was not found uſeful either in preventing or curing the ſcurvy; which perhaps may be accounted for, partly by the concentration bringing it nearer to the ſtate of the foſſile acids, or poſſibly by the diſſipation of ſome volatile parts, perhaps a portion of aërial acid; both of which circumſtances may render it leſs fit for the cure of ſcurvy. I have therefore a bad opinion of the acid exhaled to a thick conſiſtence; and judge the beſt way of preſerving its virtues to be by a diligent depuration of it from its mucilaginous part, and putting it up in cloſe veſſels, without putting any oil on its ſurface, which is ready to be acted upon by the acid, and gives a diſagreeable taint to it." *Mat. Med. vol. i. p.* 252.

The outer yellow rind of the fruit is a grateful aromatic bitter, and is commonly employed as a ſtomachic, a character in which it is deſervedly much eſteemed. By the union of its aromatic and bitter qualities it warms the ſtomach, promotes appetite, and gives tone and ſtrength to the viſcera. It contains a conſiderable portion of volatile aromatic oil, very different from that of any other bitter, except what is found in the lemon; and the combination of this oil with the bitter of the orange peel, according to Dr. Cullen, gives it peculiar virtues; but the Orange-peel being commonly employed in conjunction with other bitters, theſe virtues have not been aſcertained.[e] He adds, that he has "made ſeveral obſervations, which juſtify the opinion that Orange peel may be particularly uſeful in reſtoring the tone of the ſtomach when it has been much impaired; but this does not appear ſo often as it ſhould, becauſe we employ it almoſt only in its dried ſtate, and in too ſmall a proportion, as we take it dried with a part of the white inert ſubſtance that is alſo in the rind of the Orange."[f]

It has been juſtly remarked,[g] that "Orange-peel appears to be very conſiderably warmer than that of lemons, and to abound more with eſſential oil: to this circumſtance, therefore, due regard ought to be had in the uſe of theſe medicines. The flavour of the firſt is likewiſe ſuppoſed to be leſs periſhable than that of the other: hence the London College employ Orange-peel in the ſpirituous bitter tincture, which is deſigned for keeping; whilſt in the bitter watery infuſion, lemon-peel is preferred. A ſyrup, and diſtilled water, are for the ſame reaſon prepared from the rind of Oranges in preference to that of lemons."

Beſides the uſe of Orange-peel as a ſtomachic, it has been much celebrated for the cure of intermittent fevers; and in teſtimony of its efficacy in moſt obſtinate agues, we find ſeveral authorities cited by Profeſſor Murray.[h] It has likewiſe been experiencced to be a powerful remedy in menorrhagia, and in immoderate uterine evacuations; and for its good effects in theſe complaints, we have not only the aſſertions of foreign phyſicians, but alſo thoſe of Doctors Whytt[i] and Hamilton.[k]

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[d] *L. c.* [e] *Cullen. M. M. vol. ii. p.* 87. [f] *L. c.* [g] See *Edinburgh New Diſpenſatory by Dr. Duncan. p.* 139.

[h] As Dubeus. *Medecin des pauvres. p.* 285. *ſqq.* Both he and Nigrifolius declare it to be equal, if not ſuperior in efficacy, to the Peruvian bark. See alſo Möhringius *Com. Noric.* 1736. *p.* 20. And Werlhof. *Com. Nor.* 1735. *p.* 98. *Murray. App. Med. vol. iii. p.* 289.

The flowers, which are extremely fragrant, and much uſed in perfumes, have a warm taſte, accompanied with ſome degree of bitterneſs. "They yield their flavour by infuſion to rectified ſpirit, and in diſtillation both to ſpirit and water: the bitter matter is diſſolved by water, and on evaporating the decoction, remains entire in the extract. An oil, diſtilled from theſe flowers, is brought from Italy, under the name of oleum, or eſſentia neroli."[l]

The leaves of the Orange-tree have a bitteriſh taſte, and, on being rubbed between the fingers and thumb, manifeſt conſiderable fragrancy; like the petals they are alſo beſet with minute glands, which ſecrete an eſſential oil, and are eaſily diſcovered on holding the leaf betwixt the eye and the light. Both the leaves and the flowers,[m] but eſpecially the former, have been in great eſtimation as a remedy for epilepſy, and various other convulſive diſorders. Weſterhoef, who ſeems to have firſt made publick this virtue of the leaves, about thirty years ago, tranſmitted an account of their efficacy to De Haen,[n] who alſo experienced their good effects; after which they became a favourite remedy at Vienna, and numerous inſtances of their ſucceſs in theſe complaints are publiſhed by ſeveral German phyſicians.[o]

Their employment, however, in this country has been attended with leſs ſucceſs; proofs of which are given by Profeſſors Home[p] and Cullen.[q] The doſe of the powdered leaves is from half a dram to a dram, two or three times a day, and proportionably in decoction.

The young unripe fruit formerly had a place in the Edinburgh Pharmacopœia, under the name of Aurantia curaſſavenſia, or Curaſſo oranges. The Limon Bergamotta of the Italians, from whom we have the eſſence ſo named, approaches more nearly to the Orange than to the lemon, as its leaves have winged footſtalks.

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[i] See his *Works*, *p.* 662. [k] *De prax. reg. p.* 20. [l] *Edinb. New Diſp. p.* 139. Alſo called oleum diſtillatum florum naphæ. [m] Bergius ſtates the former to be tonic and the latter analeptic. *M. M. vol. ii. p.* 638. [n] *Rat. Med. T.* 6. *p.* 305. *ſqq.*

[o] Locher, who gave this medicine to fifteen epileptic patients, ſays, that nine were evidently much relieved by it, though not cured. *Obſ. Pract. p.* 47.—See the authorities cited by Murray. *l. c.* [p] *Clinical Experiments. p.* 211. [q] *L. c.*

CITRUS MEDICA. LEMON-TREE.

SYNONYMA. Limon. *Pharm. Lond. & Edinb.* Malus medica. *Bauh. Pin. p.* 435. *Gerard. Emac. p.* 1462. Malum citreum vulgare. *Ferrar. Heſp. p.* 56. *t.* 69. Malus citria ſive medica. *Raii Hiſt. p.* 1654. *Park. Theat. p.* 1506. Le Citronier. *Regnault. Botanique.* Μηλεα μηδικη *Theophraſt. & Dioſcor.* β Malus Limonia acida. *Bauh. Pin. p.* 436. Lime-Tree.

Claſs Polyadelphia. *Ord.* Icoſandria. *Lin. Gen. Plant.* 901.

Eſſ. Gen. Ch. *Cal.* 5-fidus. *Petala* 5, oblonga. *Antheræ* 20, filamentis connatis in varia corpora. *Bacca* 9-locularis.

Sp. Ch. C. petiolis linearibus.

THIS tree is equally beautiful as that of the orange, which it much reſembles, ſo that at a little diſtance they are not eaſily to be diſtinguiſhed: the leaves however of the Lemon-tree are commonly larger, ſlightly indented at the edges, and are without thoſe winged appendages at the footſtalks, which conſtitute the ſpecific character of the orange: the flowers, which appear moſt part of the ſummer, are large, and the outer ſide of the petals have uſually a purpliſh tinge: the other parts of infloreſcence reſemble thoſe of the orange: the fruit has a prominent apex, externally of a pale yellow or ſtraw-colour, internally divided into nine cells, containing an extremely acid juice.

This tree is a native of the upper parts of Aſia, from whence it was brought to Greece, and afterwards by Paladius to Italy.[a] Although it has been doubted whether Paladius was really the firſt cultivator of this tree in Italy, yet it is evident it could not have been propagated there long before his time, as appears by the writings of Pliny;[b] nor is its cultivation noticed by Varro, Cato, or Columella.

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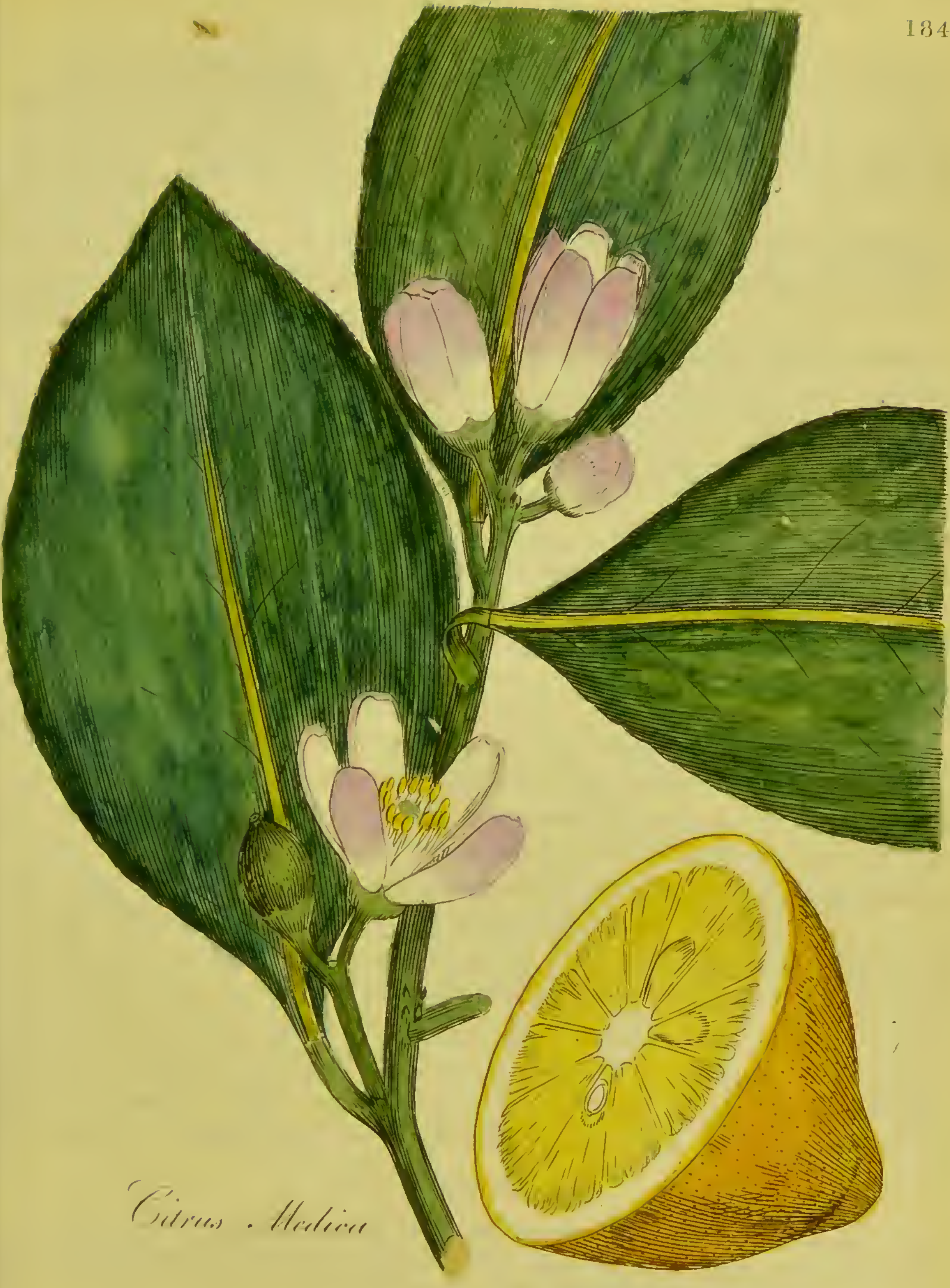
[a] Etenim Citrus apud Medos et Perſas imprimis frequens, dein Paladii diligentia in Italiam tranſlata fuit: poſtea in Hiſpania in uſum devenit, ut nemora & campos occuparit. *Bauh. Pin. p.* 435.

[b] See *Hiſt. Nat. l.* 12. *c.* 3.

After



Citrus Medica

Publiſhed by Dr. Woodville Jany. 1. 1793.

After its introduction into Europe, we find Spain, Portugal, and France, became ſucceſſively poſſeſſed of this valuable plant, with its congeners; and the Heſperian fruits are now produced in ſuch abundance, that their exportation gives riſe to a lucrative branch of commerce.

The Lemon-tree, like the orange, is common in our green-houſes; and according to the Hortus Kewenſis, was firſt cultivated in Britain in the Oxford garden, previous to the year 1648.[c]

The juice of the fruit, which is more acid than that of the orange, poſſeſſes ſimilar medical virtues, and therefore what we have already ſaid of the latter will equally apply to the former. However this juice is always preferred where a ſtrong vegetable acid is required. Saturated with the fixed vegetable alkali, it is in frequent extemporaneous uſe in febrile diſeaſes; and by promoting the ſecretions, eſpecially that of the ſurface, proves of conſiderable ſervice in abating the violence of pyrexia. This medicine is alſo often employed to reſtrain vomiting. As an antiſcorbutic, Lemon juice is alſo very generally taken on board ſhips, deſtined for long voyages; but even when well depurated of its mucilaginous parts, it is found to ſpoil by long keeping; to prevent which various means have been deviſed. We are told that, by mixing it with a fifth or ſixth part of brandy or rum, it underwent no change during thirty-two months;[e] but by being mixed with the ſpirit, it muſt have loſt a part of its ſharpneſs. As to reducing it to the ſtate of a rob, we have already noticed the objections of Dr. Cullen in treating of the orange juice.

To preſerve Lemon juice in purity for a conſiderable length of time, it is neceſſary that it ſhould be brought to a highly concentrated ſtate, and for this purpoſe it has been recommended to expoſe the juice to a degree of cold ſufficient to congeal the aqueous and mucilaginous parts. After a cruſt of ice is formed, the juice is poured into another veſſel; and by repeating this proceſs ſeveral times, the

[c] See *Hort. Oxon. ed.* 1.

[d] However, when purified as mentioned by Dr. Cullen, (which we have related of the orange juice) and kept in a proper cellar, it has been found to retain its qualities unimpaired for four years. Vide Georgii in *Vet. Acad. Handl.* 1774. *p.* 245. *ſqq.*

[e] *Forſter's Voyage, p.* 638.

remaining juice, we are informed, has been concentrated to eight times its original ſtrength, and kept without ſuffering any material change for ſeveral years.[f] The ice firſt formed is wholly void of acidity, but the ſubſequent congelations become more and more imbued with the acid.

Whytt found the juice of Lemons to allay hyſterical palpitations of the heart, after various other medicines had been experienced ineffectual;[g] and this juice, or that of oranges, taken to the quantity of four or ſix ounces a-day, has ſometimes been found a remedy in the jaundice.[h]

The exterior rind of Lemons is a grateful aromatic bitter, but leſs hot than orange-peel, and yields in diſtillation a leſs quantity of oil: the oil is extremely light, almoſt colourleſs, in ſmell nearly as agreeable as the freſh peel, and frequently employed as a perfume: it is generally brought to us from the ſouthern parts of Europe, under the name of Eſſence of Lemons. The Lemon peel, though leſs warm, is ſimilar in its qualities to that of the orange, and is employed with the ſame intentions.

The Pharmacopœias direct a ſyrup of the juice, and the peel enters into the vinous and aqueous bitter infuſions: it is alſo ordered to be candied: the eſſential oil is an ingredient in the ſpiritus amoniæ compoſitus, and other formulæ.

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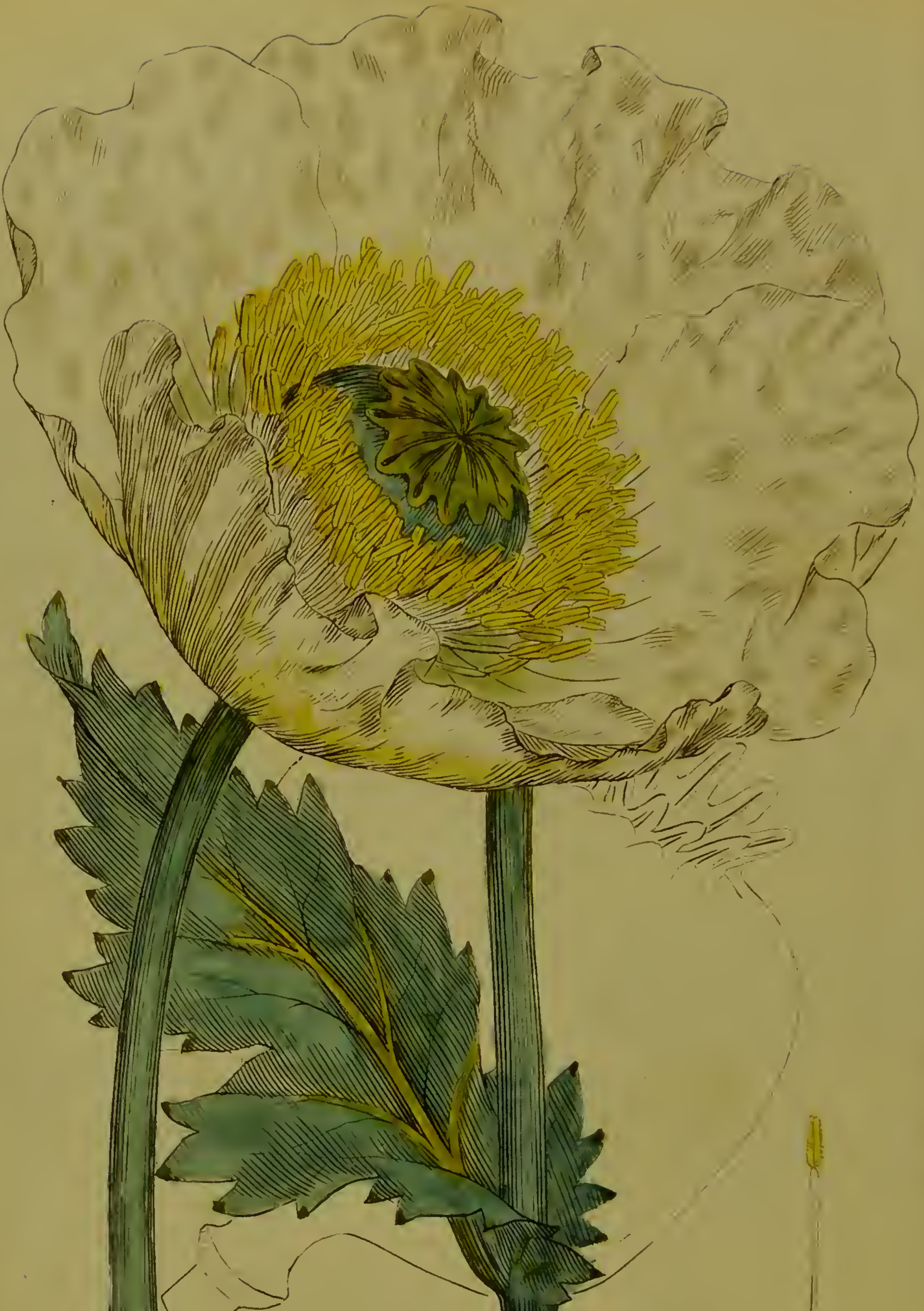
[f] See *Georgii*, *l. c.*

Lemon juice alſo may be evaporated by the heat of the ſun, till it forms a ſolid ſalt, in which ſtate it was brought from Jamaica, and found extremely grateful to the taſte, and in ſuch a concentrated ſtate, that one ſcruple of it diſſolved in a quantity of water equal to the juice contained in a lemon, was rendered of the ſame degree of acidity. See Percival. *Phil. Med. & Experimental Eſſays*, *p.* 219.

[g] *On Nervous Diſorders.* See his Works, *p.* 649.

[h] Vide Saunders *Elements of the Practice of Phyſic*, *p.* 170.



Papaver somniferum

Publiſhed by Dr. Woodville, Jan.y 1 1793.

PAPAVER SOMNIFERUM. WHITE POPPY.

Opium Pharmacopœiarum plantæ capſularum ſuccus denſatus.

SYNONYMA. Papaver album. *Pharm. Lond. & Edinb.* Papaver hortenſe ſemine albo, & β Papaver hortenſe nigro ſemine. *Bauh. Pin. p.* 170. *Raii Hiſt. p.* 853. *Synop. p.* 308. Papaver ſativum album. *Gerard. Emac. p.* 369. Papaver ſimplex album ſativum. *Park. Theat. p.* 366. Papaver. *Hall. Stirp. Helv. n.* 1065. P. ſomniferum. *Hudſon. Flor. Ang. p.* 231. *Withering. Bot. Arr. p.* 552. *Relhan. Flor. Cant. p.* 204. Μήκων *Græcis.*

Claſs Polyandria. *Ord.* Monogynia. *Lin. Gen. Plant.* 648.

Eſſ. Gen. Ch. *Cor.* 4-petala. *Cal.* 2-phyllus. *Capſula* 1-locularis, ſub ſtigmate perſiſtente poris dehiſcens.

Sp. Ch. P. calycibus capſuliſque glabris, foliis amplexicaulibus inciſis.

THE root is annual, tapering, and branched: the ſtalk is round, ſmooth, erect, often branched, of a glaucous green colour, and riſes two or three feet in height: the leaves are alternate, large, ovate, lobed, ſmooth, deeply cut into various ſegments, and cloſely embrace the ſtalk: the flowers are very large, terminal, and uſually white or purpliſh: the calyx conſiſts of two leaves, which are ovate, ſmooth, concave, bifid, and fall off on the opening of the flower: the corolla conſiſts of four petals, which are large, roundiſh, entire, undulated: the filaments are numerous, ſlender, much ſhorter than the corolla, and furniſhed with oblong erect compreſſed antheræ: the germen is large, globular, and upon it is placed the ſtigma, which is large, flat, radiated, and forms a kind of crown: the capſule is one-celled, ſmooth, divided half way into many cells, which open by ſeveral apertures beneath the crown, and contain very numerous ſmall white ſeeds. It is a native of England, uſually growing in neglected gardens, or uncultivated rich grounds, and flowers in July and Auguſt.

This ſpecies is ſaid to have been named White Poppy from the whiteneſs of its ſeeds; a variety of it however is well known to produce black ſeeds: the double-flowered white poppy is alſo another variety; but for medicinal purpoſes any of theſe may be employed indiſcriminately, as we are not able to diſcover the leaſt difference in their ſenſible qualities or effects.

The ſeeds, according to ſome authors, poſſeſs a narcotic power;[a] but there is no foundation for this opinion: they conſiſt of a ſimple farinaceous matter, united with a bland oil, and in many countries are eaten as food. As a medicine, they have been uſually given in the form of emulſion, in catarrhs, ſtranguaries, &c.

The heads or capſules of the Poppy, which are directed for uſe in the Pharmacopœias, like the ſtalks and leaves, have an unpleaſant ſmell, ſomewhat like that of opium, and an acrid bitteriſh taſte. Both the ſmell and taſte reſide in a milky juice, which more eſpecially abounds in the cortical part of the capſules, and in its concrete ſtate conſtitutes the officinal opium. Theſe capſules are powerfully narcotic, or anodyne; boiled in water, they impart to the menſtruum their narcotic juice, together with the other juices which they have in common with vegetable matters in general. The liquor, ſtrongly preſſed out, ſuffered to ſettle, clarified with whites of eggs, and evaporated to a due conſiſtence, yields an extract which is about one-fifth or one-ſixth of the weight of the heads. This poſſeſſes the virtues of opium, but requires to be given in double its doſe to anſwer the ſame intention, which it is ſaid to perform without occaſioning a nauſea and giddineſs, the uſual effects of opium. This extract was firſt recommended by Mr. Arnot;[b] and a ſimilar one is now received in the Edinburgh Pharmacopœia. It is found very convenient to prepare the ſyrup from this extract, by diſſolving one dram in two pounds and a half of ſimple ſyrup. The ſyrupus papaveris albi, as directed by both Colleges, is a uſeful anodyne, and often ſucceeds in procuring ſleep, where opium fails; it is more eſpecially adapted to children. White Poppy heads are alſo uſed externally in fomentations, either alone, or more frequently added to the decoctum pro fomento.

Opium, as we have already obſerved, is obtained from the heads or capſules of this ſpecies of Poppy, and is imported into Europe from Perſia, Arabia, and other warm regions of Aſia. The manner in which it is collected has been deſcribed long ago by Kæmpfer and others; but the moſt circumſtantial detail of the culture of the Poppy, and the method of procuring the opium from it, is that given by Mr. Kerr, as practiſed in the Province of Bahar: he ſays, " The field " being well prepared by the plough and harrow, and reduced to an " exact level ſuperficies, it is then divided into quadrangular areas of " ſeven feet long, and five feet in breadth, leaving two feet of interval, which is raiſed five or ſix inches, and excavated into an aqueduct for conveying water to every area, for which purpoſe they " have a well in every cultivated field. The ſeeds are ſown in " October or November. The plants are allowed to grow ſix or " eight inches diſtant from each other, and are plentifully ſupplied " with water. When the young plants are ſix or eight inches high, " they are watered more ſparingly. But the cultivator ſtrews all over " the areas a nutrient compoſt of aſhes, human excrements, cow " dung, and a large portion of nitrous earth, ſcraped from the highways and old mud walls. When the plants are nigh flowering, " they are watered profuſely to increaſe the juice.

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[a] Hermann, *Cynoſur. Mat. Med. p.* 436. Junker, *Conſpec. Ther. Gen. p.* 279.

[b] *Medical Eſſays & Obſ. by a Society at Edinb. vol.* 5. *p.* 108.

" When the capſules are half grown, no more water is given, and " they begin to collect the opium.

" At ſun-ſet they make two longitudinal double inciſions ‖ upon " each half-ripe capſule, paſſing from below upwards, and taking " care not to penetrate the internal cavity of the capſule. The " inciſions are repeated every evening until each capſule has received " ſix or eight wounds; they are then allowed to ripen their ſeeds. " The ripe capſules afford little or no juice. If the wound was " made in the heat of the day, a cicatrix would be too ſoon formed. " The night-dews by their moiſture favour the exſtillation of the " juice.

" Early in the morning, old women, boys, and girls, collect the " juice by ſcraping it off the wounds with a ſmall iron ſcoop, and " depoſit the whole in an earthen pot, where it is worked by the " hand in the open ſunſhine, until it becomes of a conſiderable " ſpiſſitude. It is then formed into cakes of a globular ſhape, and " about four pounds in weight, and laid into little earthen baſins to

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‖ Kaempfer ſays, that in Perſia, a five-pointed knife is uſed for making the inciſions. *Amœn. Exot. Obſ.* 15.

" be further exſiccated. Theſe cakes are covered over with the
" Poppy or tobacco leaves, and dried until they are fit for ſale.
" Opium is frequently adulterated with cow-dung, the extract of
" the Poppy plant procured by boiling, and various other ſubſtances,
" which they keep in ſecreſy." —— " Opium is here a conſiderable
" branch of commerce. There are about 600,000 pounds of it
" annually exported from the Ganges." [c]

It appears to us highly probable, that the White Poppy might be cultivated for the purpoſe of obtaining opium to great advantage in Britain. Alſton ſays, " the milky juice, drawn by inciſion from Poppy-heads, and thickened either in the ſun or ſhade, even in this country, has all the characters of good opium; its colour, conſiſtence, taſte, ſmell, faculties, phœnomena, are all the ſame; only, if carefully collected, it is more pure and more free of feculencies." [d]

Similar remarks have alſo been made by others, to which we may add thoſe of our own; for during the laſt ſummer, we at different times made inciſions in the green capſules of the White Poppy, from which we collected the juice, which ſoon acquired a due conſiſtence, and was found, both by its ſenſible qualities and effects, to be very pure opium.

Opium, called alſo Opium Thebaicum, from being anciently prepared chiefly at Thebes, has been a celebrated medicine from the remoteſt times. It differs from the Meconium, which by the ancients was made of the expreſſed juice or decoction of the Poppies.[e]

Opium is imported into Europe in flat cakes, covered with leaves to prevent their ſticking together: it has a reddiſh brown colour, and a ſtrong peculiar ſmell: its taſte, at firſt, is nauſeous and bitter, but ſoon becomes acrid, and produces a ſlight warmth in the mouth: a watery tincture of it forms an ink, with a chalybeate ſolution. According to the experiments of Alſton, it appears to conſiſt of about five parts in twelve of gummy matter, four of reſinous matter, and three of earthy, or other indiſſoluble impurities.[f]

The uſe of this celebrated medicine, though not known to Hippocrates, can be clearly traced back to Diagoras, who was nearly his cotemporary, and its importance has ever ſince been gradually advanced

[c] See *Medical Obſervations and Inquiries*, *vol.* 5. *p*: 317.

[d] *Medical Eſſays & Obſ. vol.* 5. *p.* 116.

Hence the ancients juſtly deemed the " Meconium multum opio ignavius."

[f] Vide *l. c.*

by ſucceeding phyſicians of different nations. Its extenſive practical utility however has not been long well underſtood; and in this country perhaps may be dated from the time of Sydenham. Opium is the chief narcotic now employed; it acts directly upon the nervous power, diminiſhing the ſenſibility, irritability, and mobility of the ſyſtem; and, according to a late ingenious author, in a certain manner ſuſpending the motion of the nervous fluid, to and from the brain, and thereby inducing ſleep, one of its principal effects.[g] From this ſedative power of opium, by which it allays pain, inordinate action, and reſtleſſneſs, it naturally follows, that it may be employed with advantage in a great variety of diſeaſes. Indeed, there is ſcarcely any diſorder in which, under ſome circumſtances, its uſe is not found proper; and though in many caſes it fails of producing ſleep, yet if taken in a full doſe, it occaſions a pleaſant tranquillity of mind, and a drowſineſs, which approaches to ſleep, and which always refreſhes the patient. Beſides the ſedative power of opium, it is known to act more or leſs as a ſtimulant, exciting the motion of the blood; but this increaſed action has been ingeniouſly, and, as we think, rationally aſcribed to that general law of the animal œconomy, by which any noxious influence is reſiſted by a conſequent re-action of the ſyſtem. By a certain conjoined effort of this ſedative and ſtimulant effect, opium has been thought to produce intoxication, a quality for which it is much uſed in eaſtern countries.

We ſhall now proceed to conſider the uſe of opium in particular diſeaſes, beginning with fevers.

In moſt continued fevers of this climate, though originating from contagion, or certain corruptions of human effluvia, &c. there is, at the beginning, more or leſs of inflammatory diatheſis, and while this continues, opium would generally aggravate the ſymptoms, and prove dangerous. Its uſe is likewiſe forbidden in the more advanced ſtage of this fever, whenever topical inflammation of the brain is aſcertained, which ſometimes exiſts and produces delirium, though other ſymptoms of the nervous and putrid kind prevail. But when irritation upon the brain is not of the inflammatory kind, and debility has made much progreſs, or where delirium is accompanied with ſpaſmodic affections, opium is a ſovereign remedy, and may be employed in large doſes every eight hours, unleſs a remiſſion of the ſymptoms and ſleep take place.[h]

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[g] See Cullen's *Mat. Med.* C. ſedantia. See alſo what is ſaid of opium.

In intermittent fevers, opium, in combination with other medicines, was much uſed by the ancients; but ſince the introduction of the Peruvian bark, opium is ſeldom truſted to for the cure of theſe diſorders. This medicine however has been ſtrongly recommended as an effectual means of ſtopping the recurrence of the febrile paroxyſms; and has been given before the fit, in the cold ſtage, in the hot ſtage, and during the interval, with the beſt effects;[i] producing immediate relief, and in a ſhort time curing the patient, without leaving thoſe abdominal obſtructions which have been aſcribed to the bark. But in theſe fevers perhaps the beſt practice is to unite opium with the bark, which enables the ſtomach to bear the latter in larger doſes, and adds conſiderably to its efficacy.[k]

In inflammatory diſeaſes the uſe of opium has been much condemned; and Young has eſtabliſhed a general rule, " that opium is improper in all thoſe diſeaſes in which bleeding is neceſſary:"[l] this however has been much diſputed;[m] and there are certainly numerous exceptions to it, which we ſhall now recite in the words of Dr. Cullen. " Such are thoſe caſes in which the inflammatory ſtate ariſes " from irritation in a particular part, producing ſpaſm, and ſupervening " inflammation. Thus in caſes of jaundice, I have found a biliary " ſtone, in paſſing the biliary ducts, give ſuch an irritation as to " produce a conſiderable inflammatory ſtate in the ſyſtem; and " though I have found it neceſſary, for moderating this, to employ " blood-letting, yet, as I conſidered the paſſage of the ſtone to be " chiefly interrupted by a ſpaſmodic conſtriction of the ducts, I have " employed opium for taking off this with great advantage. Similar

[h] Vide Cullen *l. c.*

[i] Berryat, who is a ſtrenuous advocate for the uſe of opium in intermittents, recommends it to be given along with an infuſion of centaury an hour before the acceſſion of the paroxyſm. See *Memoires preſentés à L'Acad. Royal des Scien.* 1755. *T.* 2. *p.* 254.

Lind prefers giving it half an hour after the commencement of the hot fit. Vide *Diſ. in hot climates*, *p.* 316. See alſo Murray's *Med. Pract. Bib. vol. p.* 321. On this ſubject ſee Brandreth, *Diſſ. inaug. de febr. interm. Ed.* 1770. Stoerck, *Ann. Med.* 1. *p.* 77. Tralles, *De Opio Sect.* 2. *p.* 70. And others.

[k] Cullen *l. c.*

[l] *Treatiſe on Opium*, *ſect.* 39.

[m] See Remmet *Diſſ. inaug. de opii uſu in morb. inflam. Ed.* 1774. Triller, *Diſſ. de ſuſpecta opii ope in pluritide*, *p.* 4. Alſo Tralles *l. c.* De Haen *Rat. Med. P. i. p.* 24. &c.

"circumſtances have frequently occurred in the caſe of urinary "calculi paſſing the ureters, in which I have found it neceſſary to "employ opium and blood-letting at the ſame time.

"In like manner as opium is uſeful in moderating excretions, ſo "when the irritation occaſions an increaſe of theſe excretions, which "is attended with affections which irritate the whole ſyſtem, opium "becomes eſpecially uſeful. Hence it becomes ſo generally uſeful "in catarrhal affections, and the cough attending them; and pro- "bably it is this analogy that has brought the uſe of opium to be "frequently employed in pneumonic inflammations. It is poſſible "that there may be caſes of ſuch inflammations wherein the opium "may be more uſeful in taking off the cough, than hurtful by aggra- "vating the inflammatory ſtate of the ſyſtem: but I have hardly "met with ſuch caſes; and even in the recent ſtate of catarrhs from "cold, I have found the early uſe of opium hurtful: and in caſes of "pneumonic inflammation, I have always found it to be very much "ſo, if exhibited before the violence of the diſeaſe had been mode- "rated by repeated blood-letting. When that indeed has been done, "I have found the opium very uſeful in quieting the cough, and I "have hardly ever found it hurtful by ſtopping the expectoration. "It may ſuſpend this for ſome hours; but if the glands of the "bronchia have been duly relaxed by bleeding and bliſtering, the "expectoration after the uſe of opiates always returns with more "advantage than before. The mucus which had iſſued before had "been poured out from the follicles in an acrid ſtate; but, by being "made to ſtagnate, it becomes milder, and is diſcharged in what the "ancients called a concocted ſtate, with more relief to the lungs."[n]

When opium is ſo managed as to procure ſweat, it will tend to remove an inflammatory ſtate of the ſyſtem, and may prove generally uſeful; a notable inſtance of this we obſerve in the cure of acute rheumatiſm by means of Dover's powder.

In the ſmall-pox opium, ſince the time of Sydenham, has been very generally and ſucceſsfully preſcribed, eſpecially after the fifth day of the diſeaſe; but during the firſt ſtage of the eruptive fever, we are told that it always does harm; an opinion which our experience at the Small-pox Hoſpital warrants us to contradict: for even at that period of the diſorder we often find the pulſe languid, and the countenance pale, though pains in the loins and head are at the ſame time very ſevere; theſe ſymptoms, with reſtleſſneſs, and other ſigns of irritability, which appear for ſome days after the attack of the diſeaſe, are conſiderably relieved by opium; to which however we uſually add camphor and vinum antimonii tartariſati, taking care always to keep the body ſufficiently open by the frequent uſe of a proper cathartic.

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[n] Cullen *l. c.*

In hæmorrhagic diſorders the uſe of opium is inferred from its known effects in reſtraining all the excretions, except that of ſweat; but unleſs the hæmorrhages be of the paſſive kind, or excited by irritation, unattended with inflammation, opium may produce conſiderable miſchief, and therefore its uſe in theſe complaints requires great circumſpection.

In dyſentery opium, though not to be conſidered as a remedy, may however be occaſionally employed to moderate the violence of the ſymptoms.

In diarrhœa, eſpecially when the acrimony has been carried off by a continuance of the diſeaſe, opium is a certain and efficacious remedy.

In cholera and pyroſis, opium is the remedy chiefly truſted to.

In cholic it is employed with laxatives; and no doubt often prevents ileus and inflammation, by relieving the ſpaſm.° Even in ileus and in incarcerated hernia, it is often found to allay the vomiting, the ſpaſms, the pain, and ſometimes to diminiſh the inflammation, and prevent the gangrene of the ſtrangulated gut.

Opium has been lately recommended for the cure of the venereal diſeaſe; and inſtances are adduced in which this medicine ſucceeded, where mercury had failed; yet few practitioners, we apprehend, will truſt to opium alone in theſe complaints: it is generally allowed, however, to be an uſeful auxiliary, and to greatly aſſiſt the action of mercury. Its uſe in preventing and ſtopping the progreſs of gangrene is well eſtabliſhed.

Opium is ſucceſsfully uſed in different ſpecies of tetanus, and affords relief to various ſpaſmodic and convulſive ſymptoms occuring in ſeveral diſeaſes, which it would exceed our limits to deſcribe partilarly; of theſe we may mention aſthma, epilepſy, dyſpepſia, hypochondriaſis, rabies canina, chorea ſancti viti, mania, &c. &c.

° See Mead, *Mon. et præcepta medica*, *p.* 64. Pringle, *Diſ. of the Army. p.* 152. Haen *Rat. Med. P.* 3. *p.* 94. *P.* 9. *p.* 137.

Reſpecting the external application of opium authors ſeem not ſufficiently agreed. Some alledge that when applied to the ſkin it allays pain and ſpaſm, procures ſleep, and produces all the ſalutary or dangerous effects which reſult from its internal uſe; while others aſſert that, thus applied, it has little or no effect whatever. But there is no doubt that, when mixed with cauſtic, it diminiſhes the pain, which would otherwiſe enſue, probably by decreaſing the ſenſibility of the part. Injected up the rectum, it has all the effect of opium taken into the ſtomach, but to anſwer this purpoſe double the quantity is to be employed. Applied to the naked nerves of animals, it produces immediate torpor, and loſs of power in all the muſcles with which the nerves communicate. Opium taken into the ſtomach, in an immoderate doſe, proves a narcotic poiſon, producing vertigo, tremors, convulſions, delirium, ſtupor, ſtertor, and finally fatal apoplexy.

The officinal preparations of this drug are opium purificatum, pilulæ ex opio, pulvis opiatus, tinctura opii, and tinctura opii camphorata; it alſo enters the pulvis ſudorificus, balſamum anodynum, electuarium japonicum, pulvis e creta compoſita, &c.

The requiſite doſe of opium varies in different perſons, and in different ſtates of the ſame perſon. A quarter of a grain will in one adult produce effects which ten times the quantity will not do in another; and a doſe that might prove fatal in cholera or cholic, would not be perceptible in many caſes of tetanus or mania. The loweſt fatal doſe, to thoſe unaccuſtomed * to take it, ſeems to be about four grains; but a dangerous doſe is ſo apt to produce vomiting, that it has ſeldom time to occaſion death. When given in too ſmall a doſe, it often produces diſturbed ſleep, and other diſagreeable conſequences; and in ſome caſes it ſeems impoſſible to be made to agree in any doſe or form. Often, on the other hand, from a ſmall doſe, ſound ſleep and alleviation of pain will be produced, while a larger one occaſions vertigo and delirium. Some prefer the repetition of ſmall doſes; others the giving a full doſe at once: its operation is ſuppoſed to laſt about eight hours.

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* It is well known, that by the continued uſe of opium the doſe requires to be increaſed to produce the effect deſired; and we are told of one inſtance in which it was increaſed to ten drams a day. See *Garcias Ab Horto Arom. vers. Clus.*

PAPAVER RHŒAS. RED or CORN POPPY.

SYNONYMA. Papaver erraticum. *Pharm. Lond.* Papaver erraticum majus. *Bauh. Pin. p.* 171. Papaver erraticum Rhœas, ſive ſylveſtre. *Park. Theat. p.* 367. Papaver laciniato folio, capitulo breviore glabro, annuum, Rhœas dictum. *Raii. Synop. p.* 308. Ροιας *Theoph. Dioſc.* Papaver foliis ſemipinnatis hiſpidis fructu ovato glabro. *Hall. Hiſt. Stirp. Helv. n.* 1064. P. Rhœas. *Gerard. Emac. p.* 371. *Hudſon. Flor. Ang. p.* 230. *Withering. Bot. Arr. p.* 551. *Relhan. Flor. Cantab. p.* 203. *Curtis, Flor. Lond. iii. n.* 36.

Claſs Polyandria. *Ord.* Monogynia. *Lin. Gen. Plant.* 648.

Eſſ. Gen. Ch. *Cor.* 4-petala. *Cal.* 2-phyllus. *Caps.* 1-locularis, ſub ſtigmate perſiſtente poris dehiſcens.

Sp. Ch. P. caps. glabris globoſis, caule piloſo multifloro, fol. pinnatifidis inciſis.

THE root is annual, ſimple, fibrous: the ſtalk is upright, branched, having hairs ſtanding at right angles with the ſtem, which riſes from one to two feet in height: the leaves are pinnated, toothed, hairy on both ſides, at the baſe ſheath-like: the peduncles are ſlender, furniſhed with hairs like the ſtem, and each ſupports a ſingle flower: the calyx conſiſts of two leaves, which are ovate, rough, concave, and deciduous: the corolla is compoſed of four petals, which are large, ſpreading, roundiſh, unequal, of a bright ſcarlet colour, and marked at the baſe with a ſhining black ſpot: the filaments are numerous, ſlender, purpliſh, and furniſhed with roundiſh compreſſed antheræ: the germen is eggſhaped, truncated at the top: there is no ſtyle: the ſtigma is convex, radiated: the radii of a purple colour, and permanent: the capſule anſwers the deſcription given of the germen; it is ſmooth, marked with ſeveral longitudinal projecting lines, which are in number equal to the radii of the ſtigma; at the top it is ſcolloped: the radii are numerous, minute, and of a purple colour.

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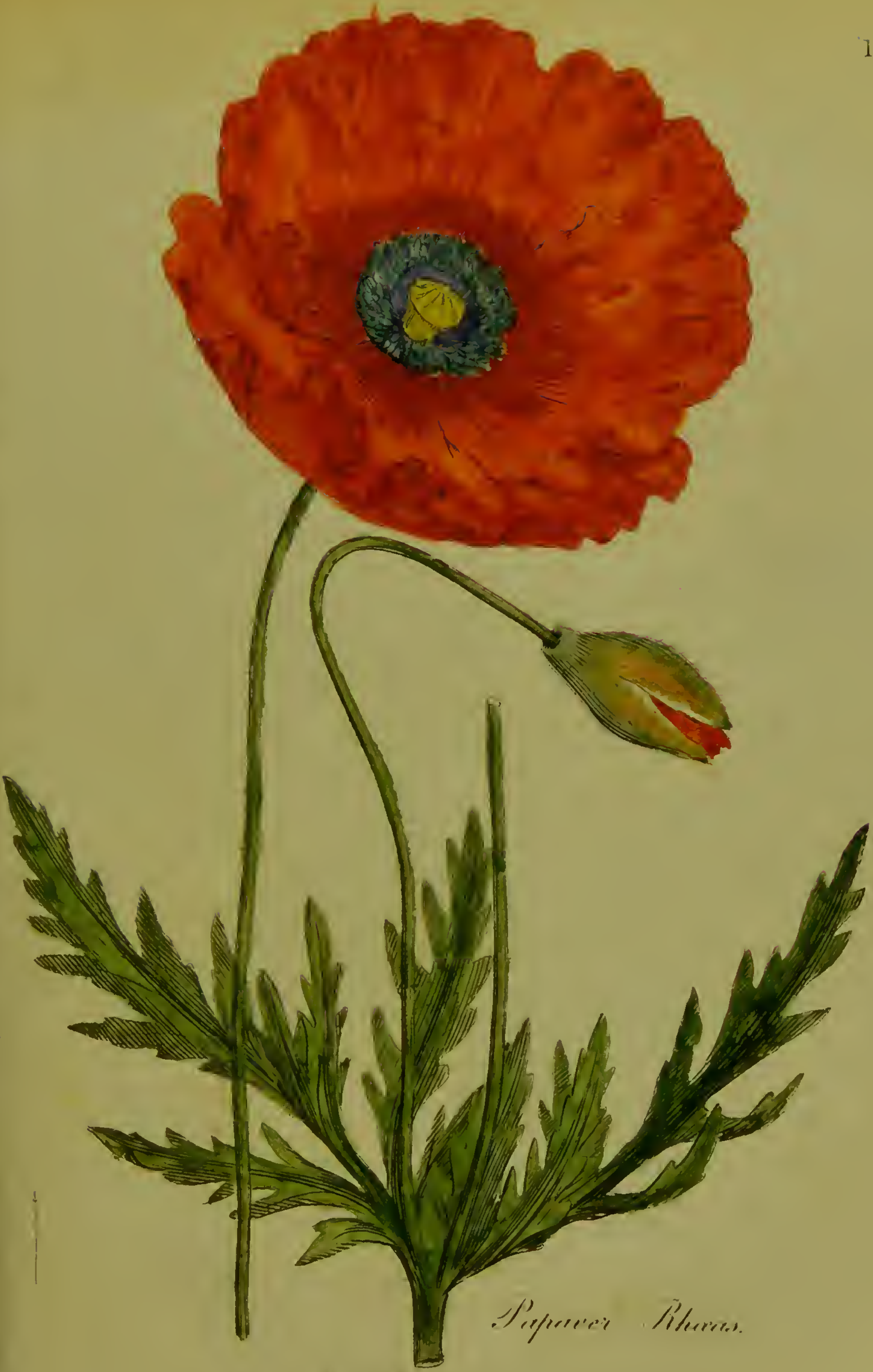

Papaver Rhœas.

Published by Dr. Woodville Feb.y 1 1703.

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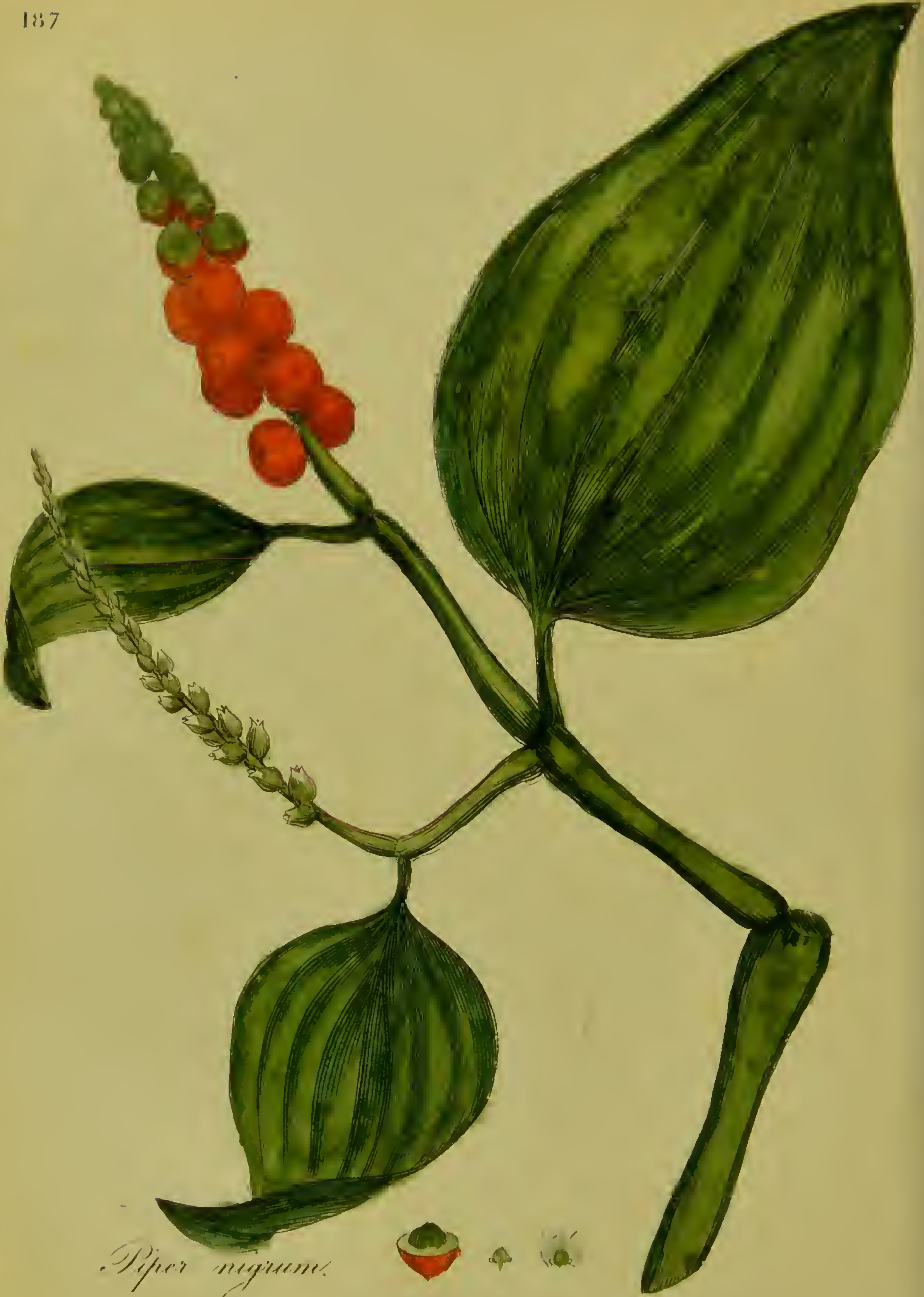

Piper nigrum.

Publiſhed by Dr. Woodville. Feb. 1 1793.

This plant is common in corn fields, and flowers in June and July. It may be diſtinguiſhed from *P. dubium*, to which it bears a general reſemblance, by its urn-ſhaped capſules, and by the hairs upon the peduncles ſtanding in a horizontal direction.

The capſules of this ſpecies, like thoſe of *ſomniferum*, contain a milky juice, of a narcotic quality, but the quantity is very inconſiderable, and has not been applied to any medical purpoſe; but an extract prepared from them has been ſucceſsfully employed as a ſedative.[a]

The flowers have ſomewhat of the ſmell of opium, and a mucilaginous taſte, accompanied with a ſlight degree of bitterneſs. A ſyrup of theſe flowers is directed in the London Pharmacopœia, which has been thought uſeful as an anodyne and pectoral, and is therefore preſcribed in coughs and catarrhal affections; but it ſeems valued rather for the beauty of its colour, than for its virtues as a medicine.

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[a] *Boùlduc Hiſt. de L'Acad. Royal des Scien. de Paris*, 1712. *p.* 52. *Chomel. Pl. uſuell: T. i. p.* 125. Fouquet of Montpellier prefers this extract to opium. See Murray, *App. Med. vol. ii. p.* 213.

PIPER NIGRUM. BLACK PEPPER.

SYNONYMA. Piper nigrum. *Pharm. Lond. & Edinb. Gerard Emac. p.* 1538. *Park. Theat. p.* 1603. Piper rotundum nigrum. *Bauh. Pin. p.* 411. *Raii Hiſt. p.* 1341. *Plukenet. Almag. p.* 297. *t.* 437. *fig.* 1. Piper nigrum. *Camel. Phil. Tranſ. vol.* 24. *p.* 1773. Molago codi. *Hort. Malab. vol.* 7. *p.* 23. *tab.* 12. Pepper Plant. *Marſden's Hiſtory of Sumatra, p.* 105. *Ic. Miller's Illuſtr.*

Claſs Diandria. *Ord.* Trigynia. *Lin. Gen. Plant.* 43.

Eſſ. Gen. Ch. Cal. 0. *Cor.* 0. *Bacca* monoſperma.

Sp. Ch. P. foliis ovatis ſeptemnerviis glabris, petiolis ſimpliciſſimis.

THE root is perennial: the ſtems are round, ſmooth, jointed, ſwelling towards each joint, woody, ſlender, branched, ſcandent, or trailing, and from eight to twelve feet in length: the leaves are ovate, entire, ſmooth, ſeven-nerved, of a dark green colour, and ſtand at the joints of the branches upon ſtrong ſheath-like footſtalks: the flowers are ſmall, white, and produced in terminal ſpikes: there is no regular calyx nor corolla: the filaments alſo are wanting: the two antheræ are roundiſh, and placed oppoſitely at the baſe of the germen: the germen is ovate, upon which ſtand three rough ſtigmata: there is no ſtyle: the fruit is a ſingle-valved berry, containing one round ſeed.

This ſpecies of Pepper grows ſpontaneouſly in the Eaſt Indies, but does not arrive at perfection without the aid of culture. It is cultivated with ſuch ſucceſs in Malacca, Java, and eſpecially at Sumatra, that from theſe iſlands Pepper is exported to every part of the world, where a regular commerce has been eſtabliſhed.

According to Mr. Marſden,[a] the ground choſen by the Sumatrans for a Pepper garden, is marked out into regular ſquares of ſix feet, the intended diſtance of the plants, of which there are uſually a thouſand in each garden. The next buſineſs is to plant the chinkareens, which ſerve as props to the Pepper vines, and are cuttings of a tree of that name, which is of quick growth. When the chinkareen has been ſome months planted, the moſt promiſing perpendicular ſhoot is reſerved for growth, and the others lopped off; this ſhoot, after it has acquired two fathoms in height, is deemed ſufficiently high, and its top is cut off. Two Pepper vines are uſually planted to one chinkareen, round which the vines twiſt for ſupport; and after being ſuffered to grow three years (by which time they acquire eight or twelve feet in height) they are cut off about three feet from the ground, and being looſened from the prop are bent into the earth in ſuch a manner that the upper end is returned to the root. This operation gives freſh vigour to the plants, and they bear fruit plentifully the enſuing ſeaſon. The fruit, which is produced in long ſpikes, is four or five months in coming to maturity: the berries are at firſt green, turn to a bright red when ripe and in perfection, and ſoon fall off if not gathered in proper time. As the whole cluſter does not ripen at the ſame time, part of the berries would be loſt in waiting for the latter ones; the Sumatrans therefore pluck the bunches as ſoon as any of the berries ripen, and ſpread them to dry upon mats, or upon the ground. By drying they become black, and more or leſs ſhrivelled, according to their degree of maturity. Theſe are imported here under the name of *black pepper*.

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[a] See *l. c. p.* 107.

White pepper[b] is the ripe and perfect berries ſtripped of their outer coats: for this purpoſe the berries are ſteeped for about a fortnight in water, till by ſwelling their outer coverings burſt; after which they are eaſily ſeparated, and the pepper is carefully dried by expoſure to the ſun. Pepper which has fallen to the ground over-ripe loſes its outer coat, and is ſold as an inferior kind of white pepper.

Of theſe pungent hot ſpices the black ſort is the hotteſt and ſtrongeſt, and moſt commonly made uſe of for medicinal as well as culinary purpoſes. They differ from moſt of the other ſpices in this, that their pungency reſides not in the volatile parts, or eſſential oil, but in a ſubſtance of a more fixed kind, which does not riſe in the heat of boiling water.[c] This fixed ſubſtance is probably the reſinous part: the aromatic odorous matter ſeems to depend upon the eſſential oil. The diſtilled oil ſmells ſtrongly of the pepper, but has very little acrimony; the remaining decoction, inſpiſſated, yields an extract of conſiderable pungency. A tincture made in rectified ſpirit is extremely hot and fiery; a few drops of it ſet the mouth as it were in a flame.

Some have ſuppoſed Pepper to be leſs heating to the ſyſtem than other aromatics; and the learned Gaubius aſſerts, that on taking it in large quantities he never found it to warm his ſtomach, nor to increaſe the frequency of his pulſe.[d] But Dr. Cullen affirms, that when he took this ſpice, even in a ſmall quantity, it always felt warm on his ſtomach, and heated his whole body; and he thinks it was owing to the frequent uſe of Pepper that Gaubius did not experience the ſame effects.[e]

Black Pepper is generally uſed as an aromatic and ſtimulant. It has been ſucceſsfully employed in ſome caſes of vertigo,[f] and in paralytic and arthritic diſorders.[g] Given in large doſes it has been found a remedy for intermittents; but its uſe in theſe has, in ſome inſtances, produced fatal conſequences.[h]

[b] White Pepper was formerly thought to be a different ſpecies from the black, and was ſold at the ſales of the Eaſt India Company (who have the monopoly of the Sumatran pepper trade) for treble the price of the black. *Marſden, l. c.*

[c] Gaubius found that the Pepper required to be boiled forty-three times in freſh quantities of water before its whole pungency was extracted. *Adverſar. p.* 52.

[d] *L. c. p.* 73.

[e] *Mat. Med. vol.* 2. *p.* 208.

[f] *Hoffmann. Rem. domeſt.* §. 26. and others.

[g] *Obſ. phyſ. & lit. vol.* 3. *p.* 449.

[h] See *Act. Soc. Med. Hav. vol. i. p.* 386.

PIPER LONGUM. LONG PEPPER.

SYNONYMA. Piper longum. *Pharm. Lond. & Edinb. Gerard. Emac. p.* 1539. *Park. Theat. p.* 1604. *Raii. Hiſt. p.* 1343. *Rumph. Amb. vol.* 5. *p.* 333. *t.* 116. *f.* 2. *Tiſ. Mant. Aromat. p.* 182. *Clus. Exot. p.* 20. 183. Piper longum orientale. *Bauh. Pin. p.* 412. Piper longum piſtolochiæ foliis abſque pediculis, maderaſpatanum. *Pluk. Alm. p.* 297. *t.* 104. *f.* 4. Cattu-tripali. *Rheed. Hort. Mal. V.* 7. *p.* 27. *t.* 14.

Claſs Diandria. *Ord.* Trigynia. *Lin. Gen. Plant.* 43.

Eſſ. Gen. Ch. Cal. 0. *Cor.* 0. *Bacca* monoſperma.

Sp. Ch. P. foliis cordatis petiolatis ſeſſilibuſque.

THE root is perennial: the ſtems are ſhrubby, round, ſmooth, branched, ſlender, and climbing; but do not riſe to any conſiderable height: the leaves differ much in ſize and form; they are commonly heart-ſhaped, pointed, entire, ſmooth, nerved, of a deep green colour, and ſtand alternately upon footſtalks: the flowers are ſmall, and produced in ſhort denſe terminal ſpikes, which are nearly cylindrical: the parts of infloreſcence, though leſs diſtinct, correſpond with the deſcription given of the former ſpecies. It is a native of the Eaſt Indies, eſpecially Java, Malabar, and Bengal.

The berries, or grains, are very ſmall, and lodged in a pulpy matter; like thoſe of the black pepper they are firſt green, and become red when ripe. This fruit is hotteſt to the taſte in its immature ſtate, and is therefore gathered while green, and dried by the heat of the ſun, when it changes to a blackiſh or dark grey colour.[a]

It is obſerved by Dr. Cullen, that Long pepper has preciſely the ſame qualities with thoſe of black, only in a weaker degree:* Bergius alſo judges black pepper to be hotter than this ſpecies; an opinion which appears to us unfounded, and the contrary is aſſerted by Lewis and Murray: the latter ſays, "Ad meum aliorumque quorundam ſenſum, in lingua acrius et calidius adhuc eſt Piper longum reliquis dictis ſpeciebus."[b]

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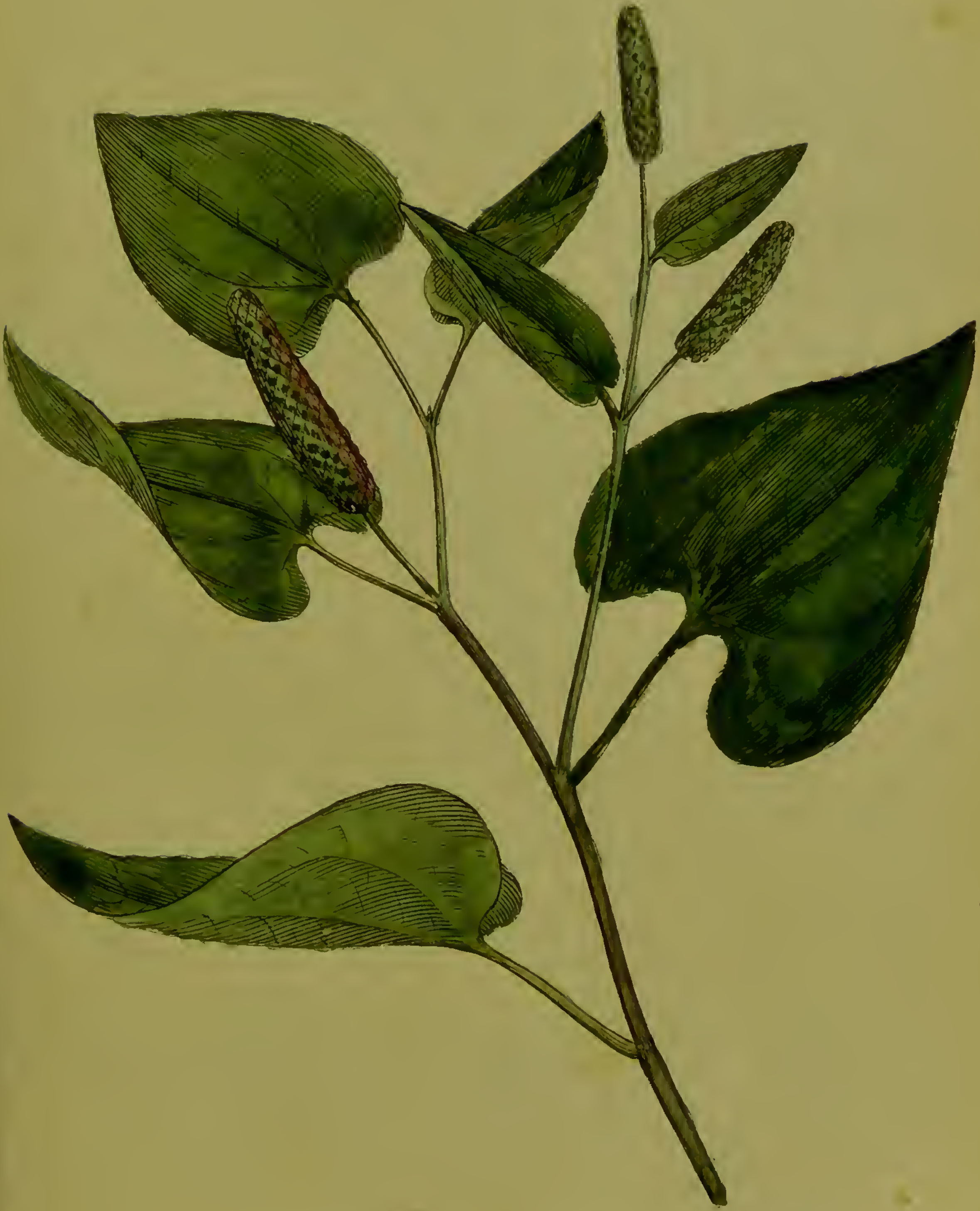
[a] *Rumph. l. c.*

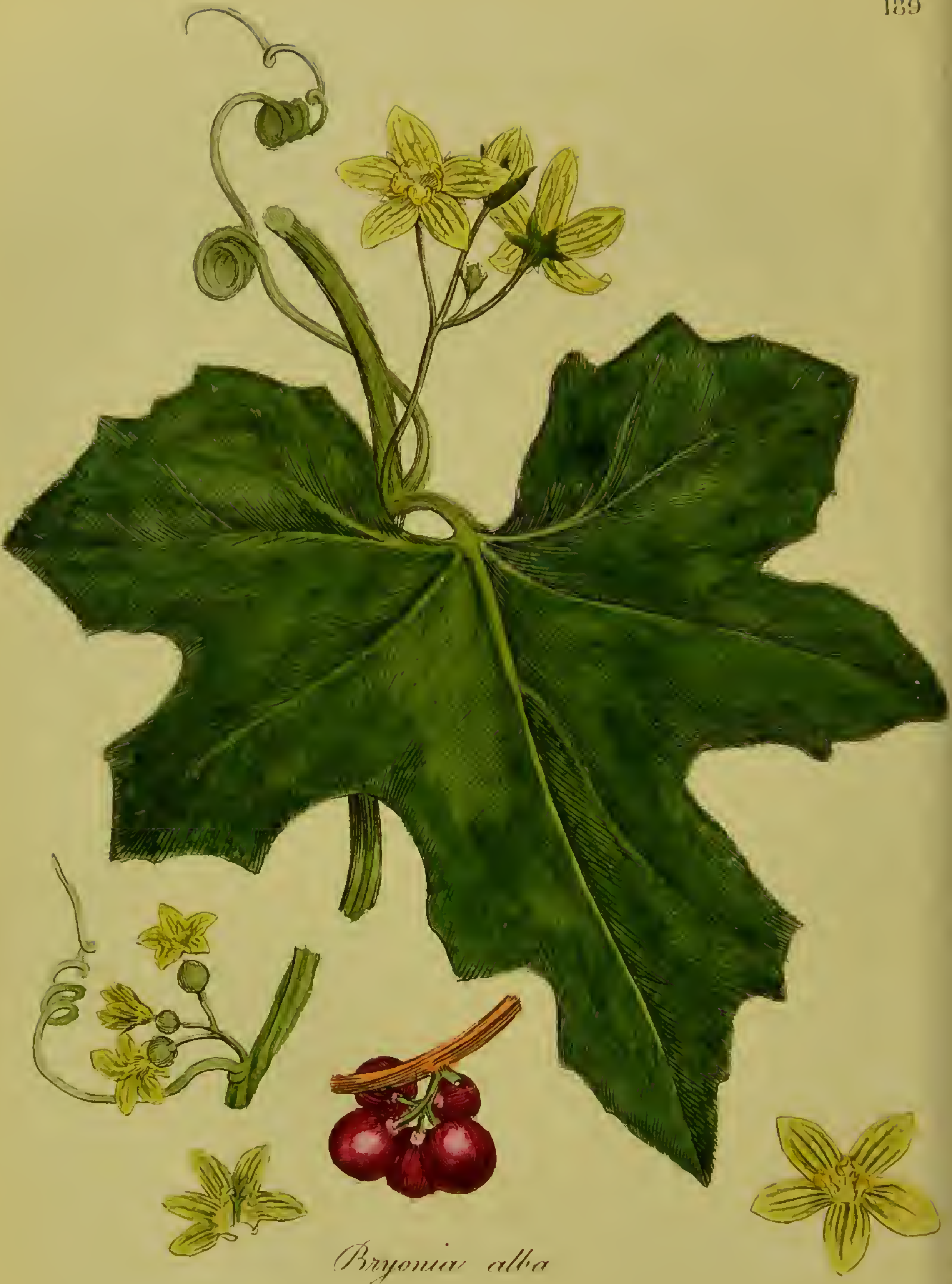
* *Mat. Med. vol. ii. p.* 209.

[b] *App. Med. vol.* 5. *p.* 36.



Piper longum

Publiſhed by Dr Woodville Feby 1. 1793.



Bryonia alba

Publiſhed by Dr. Woodville Feby. 1. 1793.

BRYONIA ALBA. WHITE BRYONY.

SYNONYMA. Bryonia. *Pharm. Edinb.* Bryonia aſpera ſive alba, baccis rubris. *Bauh. Pin. p.* 297. Bryonia alba vulgaris. *Park. Theat. p.* 178. Bryonia alba. *Gerard. Emac. p.* 869. *Raii. Hiſt. p.* 659. *Synop. p.* 261. *Hall. Hiſt. Stirp. Helv.* 574. *Hudſon. Flor. Ang. p.* 437. *Relhan. Flor. Cantab. p.* 375. *Lightfoot. Flor. Scot.* Bryonia *dioica. Withering. Bot. Arr. p.* 1133. *Ic. Flor. Dan. t.* 813. *Jacq. Flor. Auſt. t.* 199. *Miller. t.* 70.

Claſs Dioecia. *Ord.* Syngeneſia. *Lin. Gen. Plant.* 1093.

Eſſ. Gen. Ch. MASC. *Cal.* 5-dentatus. *Cor.* 5-partita. *Filamenta* 3.
FEM. *Cal.* 5-dentatus. *Cor.* 5-partita. *Stylus* 3-fidus.
Bacca ſubgloboſa, polyſperma.

Sp. Ch. B. foliis palmatis utrinque calloſo-ſcabris.

THE root is perennial, large, often a foot in circumference, tapering, branched, and of a whitiſh yellow colour: the ſtems are ſeveral yards in length, angular, ſlender, ſcandent, twiſting themſelves about the buſhes for ſupport: the leaves are large, hairy, lobed, or palmated, lobes pointed; they ſtand alternately upon ſtrong hairy footſtalks: the flowers are of a yellowiſh green colour, produced in cluſters at the footſtalks of the leaves, and are male and female on different plants: the calyx of the male flowers is bell-ſhaped, and deeply divided into five narrow pointed ſegments: the corolla is alſo divided into five ſegments, which are ovate, and ſpreading: the filaments are three, ſhort, thick, and furniſhed with irregular antheræ, of which two are ſaid to be on each two of the filaments, and one on the third: the calyx and corolla of the female flower reſemble thoſe of the male, but are ſmaller: the germen is round, and placed below the flower: the ſtyle is ſtrong, erect, of the length of the corolla, and divided at the top into three parts, which are bent downwards, and each furniſhed with a large triangular ſtigma: the fruit is a ſmooth red berry containing five or ſix ſeeds. It is common in woods and hedges, and flowers in May and June.

Linnæus places this plant in the claſs Monoecia, though he tells us that Jacquin deſcribes it as dioecious, and we have always ſeen it ſo in this country; nor have we ever found it to bear black berries. Some doubt may alſo ariſe whether it be properly referred to the order Syngeneſia, as the antheræ upon the different filaments do not unite; a circumſtance which we have endeavoured to repreſent in a ſeparate diſplay of the flower.

"Freſh Bryony root, taken up in the beginning of ſpring, abounds with a thin milky juice: if the upper part of the root be bared of earth, and the top cut over tranſverſely, the juice continues to riſe gradually to the ſurface, in notable quantity, for two or three days ſucceſſively, and may be collected by forming a cavity in the middle to receive it. Both the root in ſubſtance, and the juice, have a diſagreeable ſmell, and a nauſeous bitter biting taſte: applied for ſome time to the ſkin, they inflame or even veſicate the part. On drying the one, or inſpiſſating the other, they loſe moſt of their acrimony, and nearly the whole of their ill ſcent. In ſummer, the root proves much leſs juicy and weaker both in ſmell and taſte."[a]

Bergius[b] ſtates the virtues of this root to be purgans, hydragoga, emmenagoga, diuretica; *recent. rad.* ſubemetica; and recommends it in dropſy and aſthma.

This powerful and irritating cathartic, though now ſeldom preſcribed by phyſicians, is ſaid to be of great efficacy in evacuating ſerous humours, and has been chiefly employed in hydropical diſorders.[c] Inſtances of its good effects in other chronic diſeaſes are alſo mentioned, as aſthma, mania,[d] and epilepſy.[e] In ſmall doſes it is reported to operate as a diuretic, and to be reſolvent and deobſtruent: given in powder, from a ſcruple to a dram, it proves ſtrongly purgative; and the juice, which iſſues ſpontaneouſly in doſes of a ſpoonful or more, has ſimilar effects, but is more gentle in its operation. An extract, prepared by water, acts more mildly, and with greater ſafety, than the root in ſubſtance, and may be given from half a dram to a dram. Externally the freſh root has been employed in cataplaſms, as a reſolvent and diſcutient; alſo in iſchiadic and other rheumatic affections.

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[a] *Lewis, M. M. p.* 165.

[b] *Mat. Med. p.* 786.

[c] See *Burcgraf, Lexicon Med. p.* 1710. where he gives a particular account of a ſucceſsful method of employing this root.

[d] *Sydenham, Proceſs. integr. in op. p.* 626.

[e] *Arnoldus De Villa Nova. Brev. pract. L.* 1. *c.* 22. *Reuſſner, Curat. & Obſerv. p.* 158.

The odour of this plant is very ſtrong, and peculiarly ungrateful; its taſte is warm and aromatic. It abounds with a yellowiſh gummy reſinous juice, very much reſembling opoponax. Its virtues are ſuppoſed to be ſimilar to thoſe of angelica and maſterwort in expelling flatulencies, exciting ſweat, and opening obſtructions; therefore chiefly uſed in hyſterical diſorders, and in uterine obſtructions. A teacupful of the juice with rheniſh wine, or a decoction of the ſeeds with wine or mugwort water, was, by Foreſtus,[a] ſaid to be a ſecret remedy of extraordinary efficacy in ſlow or laborious parturition. The leaves, eaten as ſallad, are accounted emmenagogue.[b] The root, which is leſs ungrateful than the leaves, is ſaid to poſſeſs ſimilar virtues, and may be employed in powder.

[a] See Foreſt. lib. 28. obſ. 32. in ſchol. [b] Chomel. Uſuelles, t. 2. p. 216.

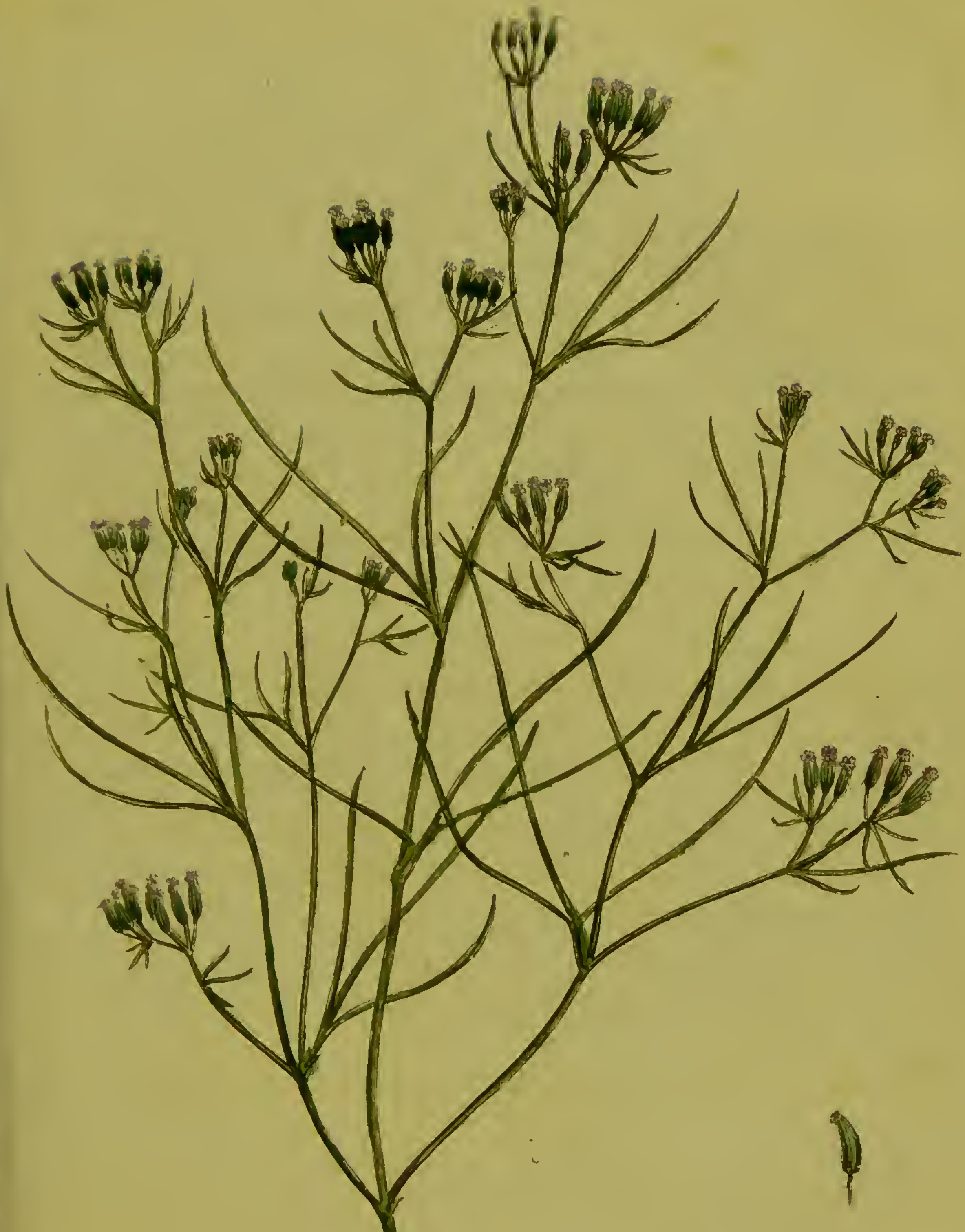
CUMINUM CYMINUM. CUMMIN.

SYNONYMA. Cuminum. *Pharm. Lond. & Edinb.* Cuminum ſemine longiore. *Bauh. Pin. p.* 146. Cuminum ſativum Dioſcoridis. *Gerard. Emac. p.* 1066. Cyminum, ſive Cuminum ſativum. *J. Bauh. iii. p.* 22. *Raii Hiſt. p.* 433. Cuminum vulgare. *Park. Theat. p.* 887. Cuminum. *Mor. Umb.* 4. *Hiſt. Oxon. iii. p.* 271. Fœniculum orientale, Cuminum dictum. *Tourn. Inſt.* 312. *Icon. Rivin. Pentap. t.* 40.

Claſs Pentandria. *Ord.* Digynia. *Lin. Gen. Plant.* 351.

Eſſ. Gen. Ch. *Fructus* ovatus, ſtriatus. *Umbellulæ* 4. *Involucra* 4-fida.

THE root is annual, ſimple, fibrous: the ſtalk is round, ſlender, often procumbent, branched, and riſes about ſix or eight inches in height: the leaves are numerous, narrow, linear, pointed, graſs-like: the flowers are purple, and produced in numerous ſmall umbels, which are uſually compoſed of four radii, each ſupporting a partial umbel of a like number: the general and partial involucra conſiſt of four narrow pointed ſegments: all the florets are fertile: the corolla is



Cuminum Cyminum

Publiſhed by Dr. Woodville March 1. 1793.

is compoſed of five petals, which are unequal, bent inwards, and notched at the apex: the filaments are five, and furniſhed with ſimple antheræ: the germen is large, ovate, and placed below the corolla: the two ſtyles are minute, and terminated by ſimple ſtigmata: the fruit is egg-ſhaped, or oblong, ſtriated: the ſeeds are two, oblong, flat on one ſide, convex and ſtriated on the other.

This plant, which is the only ſpecies of Cuminum yet diſcovered, is a native of Egypt and Ethiopia, and is cultivated in the iſlands of Sicily and Malta, from whence we are ſupplied with the ſeeds.[a]

“ Cumin ſeeds have a bitteriſh warm taſte, accompanied with an aromatic flavour, but not agreeable. They give out great part of their ſmell by infuſion in water, but very little of their taſte: in diſtillation with water, a pungent oil ariſes, of a ſtrong ungrateful flavour like that of the ſeeds: the decoction, inſpiſſated, leaves a weakly roughiſh bitteriſh extract. Rectified ſpirit takes up the whole virtues of the cummin by infuſion, and leaves them nearly uninjured in evaporation.”[b]

Cummin has been thought to be the Κυμινον of Dioſcorides. The ſeeds, which rank as one of the four greater hot ſeeds, contain a large proportion of eſſential oil, and are therefore ſuppoſed to poſſeſs a carminative and ſtomachic power, equal, if not ſuperior to moſt of thoſe of the umbelliferous claſs.[c] They are generally preferred to the other ſeeds for external uſe in diſcuſſing indolent tumours, and give name both to a plaſter and cataplaſm in the Pharmacopœias.

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[a] It was cultivated in England in 1594 by Sir Hugh Plat. See *Plat's Garden of Eden. part. ii. p.* 134. *Hort. Kew.*

[b] *Lewis. Mat. Med. p.* 268.

[c] *Cullen. M. M. vol. ii. p.* 159.

AMYRIS GILEADENSIS.

AMYRIS GILEADENSIS. BALSAM of GILEAD AMYRIS.

Balſamum Gileadenſe. *Pharm. Edinb.* Conf. *Bruce's Travels to diſcover the Source of the Nile. Appendix. p.* 16. *Belon. Obſervations de pluſieures ſingularitéz trouvées en Grece-Arabie, &c. Lib.* 2. *cap.* 39. *p.* 110. *Alpinus, in Lib. de plantis Ægypti, p.* 48. *fig. p.* 60. Forſkal Flor. Ægyptiaco-Arab. *p.* 79. *Bauh. Pin. p.* 400. *Gerard. Emac. p.* 1528. *Park. Theat. p.* 1528.

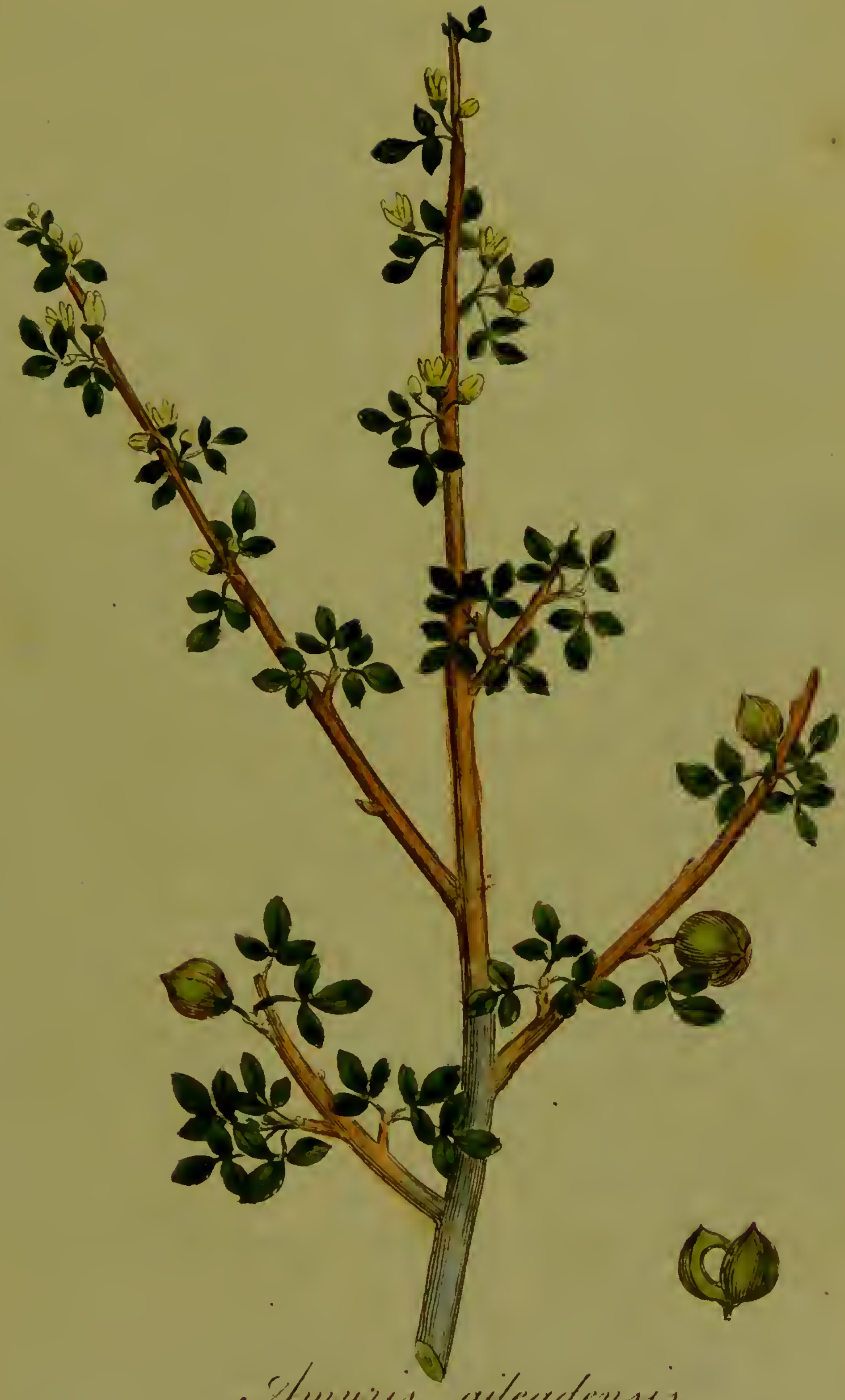
Claſs Octandria. *Ord.* Monogynia. *Lin. Gen. Plant.* 473.

Eſſ. Gen. Ch. Cal. 4-dentatus. *Petala* 4. oblonga. *Stigma* tetragonum. *Bacca* drupacea.

Sp. Ch. A. foliis ternatis integerrimis, pedunculis unifloris lateralibus.

ACCORDING to Mr. Bruce the Baleſſan or Balm-tree grows to the height of fourteen feet: its branches are numerous, ſpreading, crooked: the wood is white, ſoft, and covered with a ſmooth aſh-coloured bark: the leaves are ſmall, few, commonly conſiſting of one pair of pinnæ, with an odd one at the top: the pinnæ are ſeſſile, inverſely ovate, entire, veined, and of a bright green colour: the flowers are ſcattered upon the branches, and are of a white colour: the calyx is permanent, and divided at the brim into four ſmall pointed teeth: the petals are four, oblong, concave, patent, white: the filaments are eight, tapering, erect, and terminated by oblong antheræ: the germen is egg-ſhaped, and placed above the inſertion of the corolla: the ſtyle is thick, of the length of the filaments, and terminated by a quadrangular ſtigma: the fruit is of the drupaceous kind, roundiſh, opening by four valves, and containing a ſmooth nut.

Mr. Bruce informs us, that Balm-tree is a native of Abyſſinia, growing among the myrrh-trees behind Azab, all along the coaſt, to the Straits of Babelmandeb; and that it was early tranſplanted into the South of Arabia, and into Judea 1000 years before the Queen of Saba, who, according to Joſephus, gave this tree, among other preſents, to King Solomon.



Amyris gileadensis.

Publiſhed by Dr. Woodville March 1. 1793.

Theophraſtus, Dioſcorides, Pliny, and even the Arabian phyſicians, ſuppoſed this Balſam to be the produce of Judea only; and hence it ſeems to have received the name of Balſamum Judaicum, or Balm of Gilead. Forſkal, who firſt diſcovered this tree to belong to the genus Amyris, tranſmitted a branch of it to Linnæus, which on being broken ſmelled ſtrongly of the Balſam; the leaves were all ternate, like thoſe of the annexed figure, which correſponds exactly with the ſpecimen in the poſſeſſion of Sir Joſeph Banks.

Beſides this tree, which was found at Gidda, another was obſerved at Yemen, differing only from that found at Gidda, in having pinnated leaves. The former was firſt deſcribed by Linnæus in his Mantiſſa, under the name A. Gileadenſis, the latter under that of A. Opobalſamum; the name which he has adopted in his Materia Medica.

Whether theſe two ſpecies, the difference of which is ſuppoſed to conſiſt merely in the number of their foliola, are really the ſa[illegible] not, we cannot undertake to determine; but judging from analogy we ſhould decide in the affirmative; for even in the figure of this tree, given by Alpinus, to which Linnæus refers the A. Opobalſamum, the number of the leafits varies much, being five, ſeven, and ſometimes three; and in that publiſhed by Mr. Bruce, the larger leaves conſiſt of five leafits, but the ſmaller only of three.

The deſcription of the Balſam of Mecca-tree, lately given by Gleditſch, differs from that of all other writers: he removes it from the genus Amyris, as not having the characters of that family;[a] we ſhall therefore leave this author without making any further remark.

This Balſam, which has been received in the different Pharmacopœias under the names of Balſamum de Mecca, Opobalſamum, Balſamum verum, and Balſamum Gileadenſe, iſſues ſpontaneouſly from the bark of the tree; but is more commonly obtained by inciſions: the Xylobalſamum, as the name imports, is prepared from the wood, and the Carpobalſamum from the fruit. The Balſam now imported into Europe is reported to be principally collected between Mecca and Medina. The Bark, Mr. Bruce ſays, "is cut by an axe,[b] when the juice is in its ſtrongeſt

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[a] See *Schrift. d. Berlin. Geſellſchaft Naturforſch. Freunde. vol.* 3. *p.* 103.

[b] Tacitus ſays this tree was ſo averſe to iron, that it trembled upon a knife being laid near it: and ſome pretend that the inciſions ſhould be made with ivory, ſhells, glaſs, or ſtone.

"circulation in July, Auguſt, and the beginning of September. It "is then received into a ſmall earthen bottle, and every day's pro"duce gathered and poured into a larger, which is kept cloſely corked. "The Opobalſamum, or juice flowing from the Balſam-tree, at firſt "when it is received into the bottle or vaſe from the wound from "whence it iſſues, is of a light yellow colour, apparently turbid, in "which there is a whitiſh caſt, which I apprehend are the globules "of air that pervade the whole of it in its firſt ſtate of fermentation; "it then appears very light upon ſhaking. As it ſettles and cools, it "turns clear, and loſes that milkineſs which it firſt had when flowing "from the tree into the bottle. It then has the colour of honey, and "appears more fixed and heavy than at firſt. After being kept for "years, it grows of a much deeper yellow, and of the colour of gold. "I have ſome of it which I got from the Cadi of Medina in 1768; "it is now ſtill deeper in colour, full as much ſo as the yelloweſt "honey. It is perfectly fluid, and has loſt very little either of its "taſte, ſmell, or weight. The ſmell at firſt is violent, and ſtrongly "pungent, giving a ſenſation to the brain like that of volatile ſalts "when raſhly drawn up by an incautious perſon. This laſts in "proportion to its freſhneſs, for, being neglected and the bottle "uncorked, it quickly loſes this quality, as it probably will at laſt by "age, whatever care is taken of it."[c]

The Balſam which one tree yields is very ſmall,* and the collecting of it is tedious and troubleſome: hence it is ſo very ſcarce that the genuine Balſam is rarely if ever exported in a commercial way.[d] The beſt Balſam, according to Alpinus, is at firſt turbid and white, of a very ſtrong pungent ſmell, like that of turpentine, but much ſweeter and more fragrant, and of a bitter, acrid, aſtringent taſte: on being kept for ſome time, it becomes thin, limpid, light, of a greeniſh hue, and then of a gold yellow, after which it grows thick like turpentine, and loſes much of its fragrance. Some compare the ſmell of this

[c] *L. c.*

[d] Lady Mary Wortley Montague ſays, that even at Conſtantinople it was not without difficulty procured. See *Letters*, *vol. ii. p.* 116.

* Three or four drops a day are ſaid to be the uſual quantity obtained from one branch; nor does the moſt fertile tree ever yield more than ſixty in that time. See *Gerlachs Tagebuch s. Reiſe nach Conſtantinopel. p.* 227.

Balſam to that of citrons; others to that of a mixture of roſemary and ſage flowers. The chief mark of its goodneſs is ſaid to be founded on this, that when dropped on water it ſpreads itſelf all over the ſurface, forming a thin pellicle, tough enough to be taken up upon the point of a pin, and at the ſame time impregnating the water with its ſmell and flavour.[e]

It appears on ſcripture authority, that the great value and uſe of this drug remounts to very early ages,[f] as it ſeems coeval with the India trade for pepper. To enumerate all the virtues and medicinal uſes ſtill attributed to it by eaſtern nations, would be outraging the bounds of all rational credibility: but they who are deſirous of this information may be gratified by conſulting Alpinus. European phyſicians conſider it to be not eſſentially different from other reſinous fluids, or turpentines, eſpecially as we find it imported here: it is therefore generally believed, that the Canada and Copaiva balſams will anſwer every purpoſe for which it can be employed. In Turkey it is not only in high eſteem as a medicine, but alſo as an odoriferous unguent and coſmetic: its effects with reſpect to its laſt-mentioned uſe ſeem to depend merely on its ſtimulating the ſkin; for it is obſerved by Lady Mary Wortley Montague, that the day after ſhe had uſed the Balſam, her face became red and ſwollen; an inconvenience which ſhe ſuffered for three days.[g]

[e] This teſt of the goodneſs of the Balſam, which is mentioned by Alſton, is not to be depended upon, as ſeveral reſinous fluids, and even oil of juniper, produce the ſame phœnomena.

[f] Balm and Myrrh were carried by the Iſhmaelites to Egypt. See *Gen. c. xxxvii. v.* 25.

[g] See *l. c.*

The high opinion entertained of its virtues we learn from the following verſe in Jeremiah: "Is there no balm in Gilead? is there no phyſician there? why then is not the health of the daughter of my people recovered?" ch. viii. ver. 22.

TOLUIFERA BALSAMUM.

TOLUIFERA BALSAMUM. BALSAM OF TOLU TREE.

Balſamum tolutanum. *Pharm. Lond. & Edinb.*

SYNONYMA. Balſamum Tolutanum, foliis ceratiæ ſimilibus. *Bauh. Pin. p.* 401. Balſamum de Tolu. *Monard. Clus. Exot. p.* 304. *Park. Theat. p.* 1570. *J. Bauh. Hiſt. vol. i. p.* 296. *Raii. Hiſt. p.* 1758.

Claſs Decandria. *Ord.* Monogynia. *Lin. Gen. Plant.* 524.

Eſſ. Gen. Ch. *Cal.* 5-dentatus, campanulatus. *Petala* 5, infimo maximo, obcordato. *Stylus* nullus.

THIS tree grows to a conſiderable height; it ſends off numerous large branches, and is covered with rough thick greyiſh bark: the leaves are elliptical or ovate, entire, pointed, alternate, of a light green colour, and ſtand upon ſhort ſtrong footſtalks: the flowers are numerous, and produced in lateral racemi: the calyx is bell-ſhaped, divided at the brim into five teeth, which are nearly equal, but one is projected to a greater diſtance than the others: the petals are inſerted into the receptacle, and are five in number, of which four are equal, linear, and a little longer than the calyx; the fifth is much the largeſt, inverſely heart-ſhaped, and its *unguis* is of the length of the calyx: the ten filaments are very ſhort, and furniſhed with long antheræ: the germen is oblong: there is no ſtyle: the ſtigma is pointed: the fruit is a round berry.

Through the favour of Sir Joſeph Banks, we have been enabled to preſent our readers with the annexed figure of this tree, which has hitherto been little known, and but imperfectly deſcribed.[a] It grows in Spaniſh America, in the Province of Tolu, behind Carthagena,

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[a] We regret that the flowers were not ſufficiently advanced for us to repreſent the interior parts of infloreſcence. A piece of the bark, which taſted ſtrongly of the Balſam, accompanies the ſpecimen in Sir Joſeph's Herbarium.

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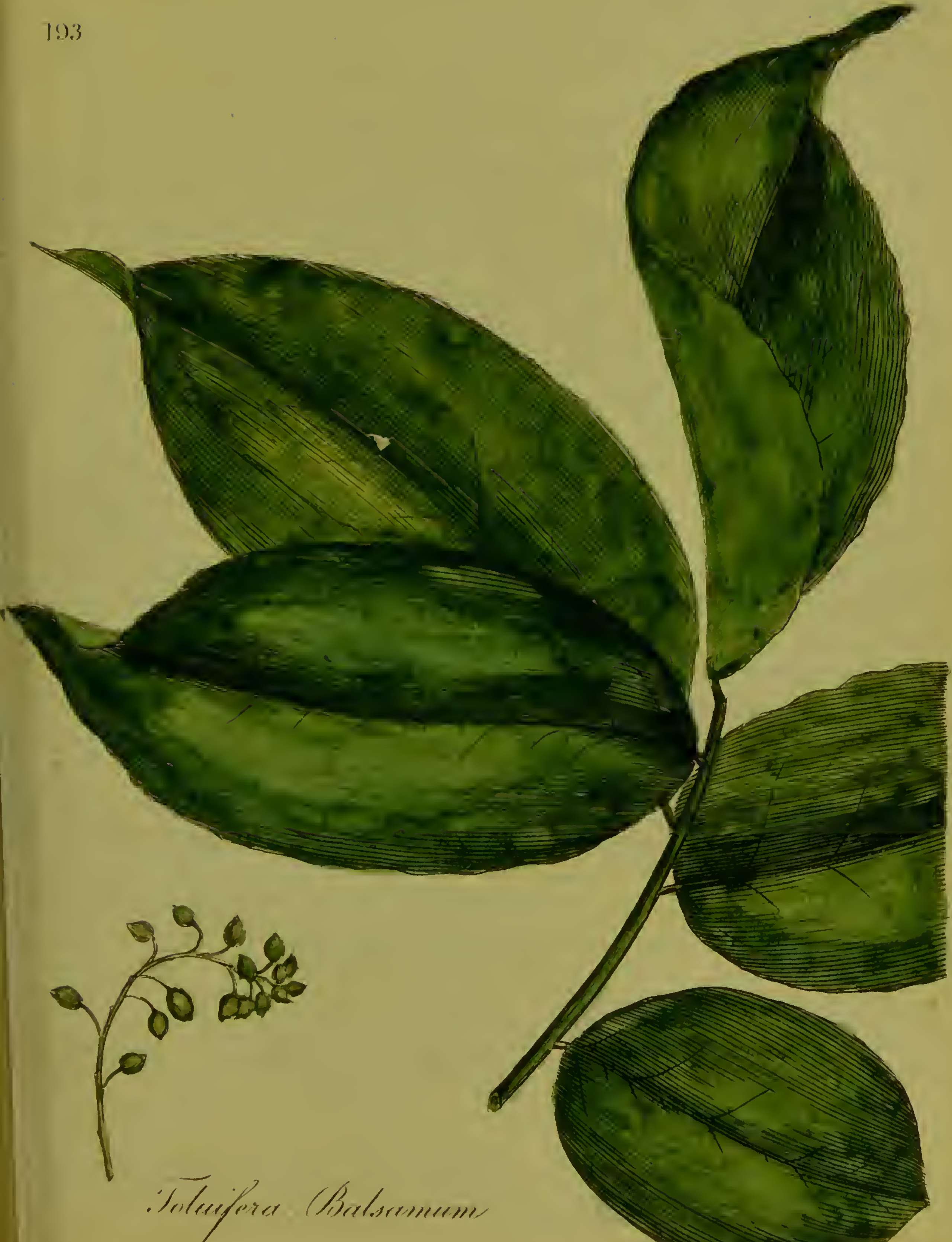

Toluifera Balsamum

Publiſhed by Dr. Woodville March. 1. 1793

gena, whence we are ſupplied with the Balſam, which is brought to us in little gourd-ſhells. This Balſam is obtained by making inciſions in the bark of the tree, and is collected into ſpoons, which are made of black wax, from which it is poured into proper veſſels.*

This Balſam is of a reddiſh yellow colour, tranſparent, in conſiſtence thick and tenacious: by age it grows ſo hard and brittle, that it may be rubbed into a powder between the finger and thumb.[b] Its ſmell is extremely fragrant, ſomewhat reſembling that of lemons; its taſte is warm and ſweetiſh, and on being chewed it adheres to the teeth. Thrown into the fire it immediately liquifies, takes flame, and diſperſes its agreeable odour. Though it does not diſſolve in water, yet if boiled in it for two or three hours, in a covered veſſel, the water receives its odoriferous ſmell: water alſo ſuffers a ſimilar impregnation from the Balſam by diſtillation. With the aſſiſtance of mucilage it unites with water, ſo as to form a milky ſolution. It diſſolves entirely in ſpirit of wine, and eaſily mixes with diſtilled oils, but leſs eaſily with thoſe of the expreſſed kind. Diſtilled without addition, it produces not only an empyreumatic oil, of a pale dark colour, but ſometimes a ſmall portion of a ſaline matter, ſimilar to that of the flowers of benzoine.

This Balſam poſſeſſes the ſame general virtues with the former, and that of Peru; it is however leſs heating and ſtimulating, and may therefore be employed with more ſafety. It has been chiefly uſed as a pectoral, and is ſaid to be an efficacious corroborant in gleets and ſeminal weakneſſes. It is directed by the Pharmacopœias in the ſyrupus tolutanus, tinctura tolutana, & ſyrupus balſamicus.

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* *Monard. l. c.*

[b] See Murray, *App. Med. vol. vi. p* 118.

SMILAX SARSAPARILLA. SARSAPARILLA SMILAX.

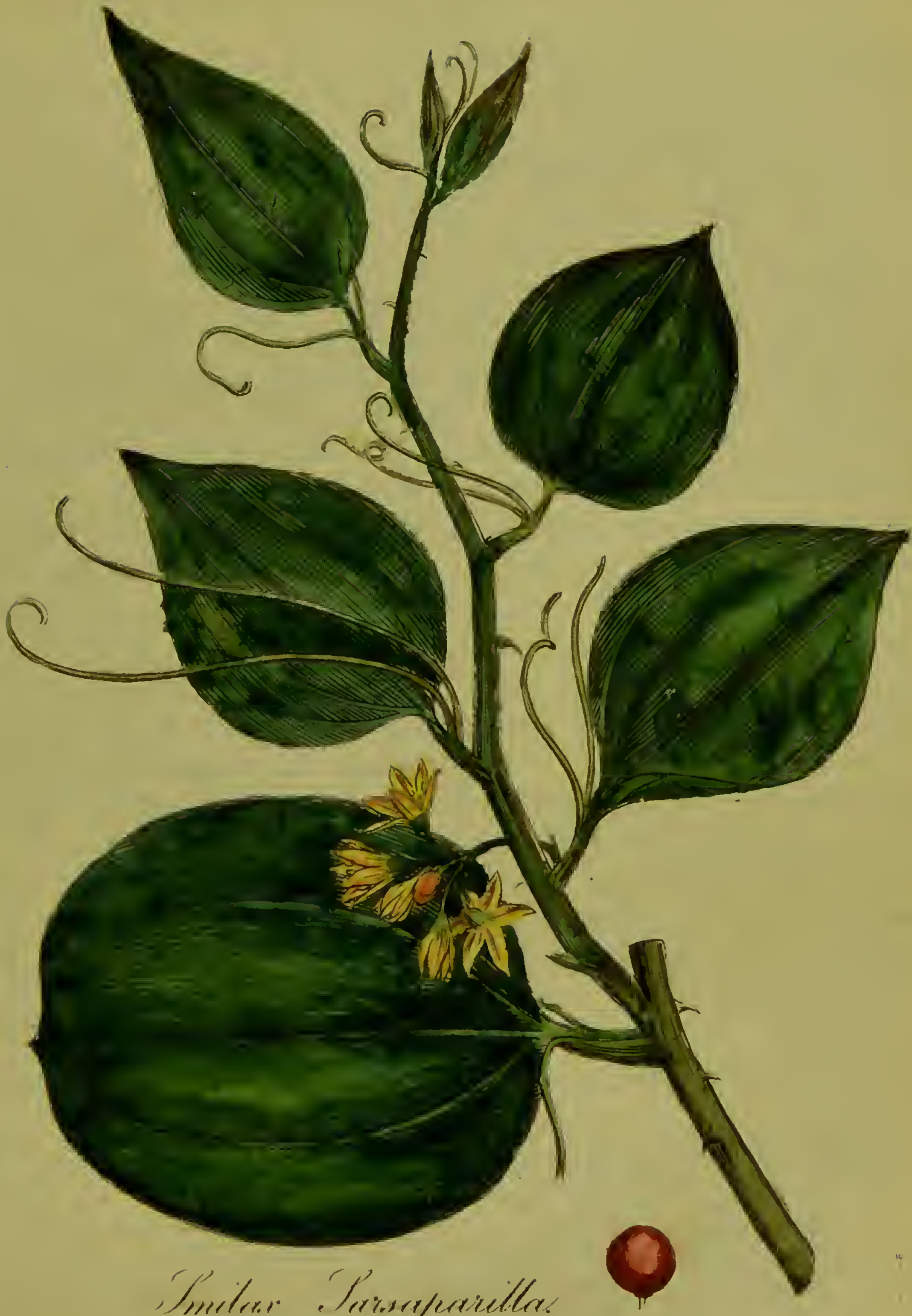
SYNONYMA. Sarſaparilla. *Pharm. Lond. & Edinb.* Smilax aſpera peruviana ſive Sarſaparilla. *Bauh. Pin. p.* 296. *Park. Theat. p.* 173. *Raii Hiſt. p.* 656. *Gerard. Emac. p.* 856. Smilax caule angulato aculeato, foliis ovatis acutis inermibus. *Roy. Lugdb. p.* 228. Smilax viticulis aſperis virginiana, folio hederaceo leni Zarga nobiliſſima. *Pluck. Phytogr. tab.* 111. *f.* 2.

Claſs Dioecia. *Ord.* Hexandria. *Lin. Gen. Plant.* 1120.

Eſſ. Gen. Ch. Masc. *Cal.* 6-phyllus. *Cor.* 0.
Fem. *Cal.* 6-phyllus. *Cor.* 0. *Styli* 3. *Bacca* 3-locularis. *Sem.* 2.

Sp. Ch. S. caule aculeato angulato, foliis inermibus ovatis retuſo-mucronatis trinerviis.

THE root is perennial, divided into ſeveral branches, which are ſomewhat thicker than a gooſe quill, ſtraight, externally brown, internally white, and three or four feet in length: the ſtalks are ſhrubby, long, ſlender, ſcandent, or trailing, angular, and beſet with ſpines: the leaves are ovate, without ſpines, pointed, three nerved, and ſtand alternately upon footſtalks, at the baſe of which proceed long tendrils: the flowers are male and female on different plants, lateral, and uſually ſtand three or four together upon a common peduncle: the calyx of the male flower is bell-ſhaped, divided into ſix ſegments, which are oblong, ſpreading, and reflexed at their points: the filaments are ſix, ſimple, and furniſhed with oblong antheræ: the calyx of the female flower is ſimilar to that of the male: there is no corolla, unleſs the calyx be conſidered as ſuch: the germen is ovate, and ſupports three minute ſtyles, furniſhed with oblong reflexed hairy ſtigmata: the fruit is a round three-celled berry, containing two globular ſeeds.



Smilax Sarsaparilla.

Publiſhed by W. Woodville March. 1. 1793.

This plant is a native of America, and flowers in July and Auguſt. According to Mr. Aiton it was firſt cultivated in this country by Mr. Forſter in 1691.[a]

Though this is the plant which is conſidered by Linnæus as furniſhing the officinal Sarſaparilla, yet there are other writers who contend that this medicine is the root of the Smilax aſpera L. which is ſaid to correſpond with the Sarſaparilla in every reſpect.[b] Sir Wm. Fordyce, who has inveſtigated the ſubject, ſays, "Proſper Alpinus has put it beyond all doubt, by the appearance of the ſmilax aſpera, which he found in ſoft grounds in the iſland of Zant, (Zacynthus) that Europe, and the Grecian iſlands in particular, furniſh the true Sarſaparilla, or *Smilax aſpera peruviana dicta* of C. Bauhine."[c] But this ſynonym is referred to the Smilax Sarſaparilla by Linnæus, whoſe authority we have followed, along with Murray and Bergius, in preference to that of Alpinus. Beſides it may be remarked, that in Spain, Italy, and other parts of Europe, where the Smilax aſpera grows in abundance, the American Sarſaparilla is ſtill employed, and imported at a great expence. It is probable however that theſe two ſpecies of the ſame genus, and of the ſame ſubdiviſion of *caule aculeato*, *angulato*, may have roots of ſimilar appearance and properties: we have already noticed that not only different ſpecies, but even different genera in ſome inſtances, produce the ſame drug.

"This root has a farinaceous ſomewhat bitteriſh taſte, and no ſmell. To water it communicates a reddiſh brown, to rectified ſpirit a yellowiſh red tincture, but gives no conſiderable taſte to either menſtruum. An extract, obtained by inſpiſſating the ſpirituous tincture, has a weak ſomewhat nauſeous balſamic bitterneſs, which is followed by a ſlight but durable pungency. The watery extract is much weaker, and in larger quantity."[d]

Sarſaparilla was more than two centuries ago introduced into Spain[e] as an undoubted ſpecific in ſyphilitic diſorders, and was alſo celebrated as a medicine in ſome other diſeaſes of the chronic kind. But whether it was owing to a difference of climate, or other cauſes, European practitioners ſoon found that it by no means anſwered the character which it had acquired in the Spaniſh Weſt Indies, and therefore it became very much neglected. Many phyſicians however ſtill conſider the Sarſaparilla to be a medicine of much efficacy; and though they admit that by the uſe of this root alone we are not to expect a cure of the lues venerea, yet they aſſert that when it is given along with mercury, the diſeaſe is much ſooner ſubdued; and that ulcers, nodes, and other ſymptoms of this diſorder, which reſiſted the effects of repeated ſalivations, have afterwards diſappeared by the continued uſe of Sarſaparilla. In proof of this, we find ſeveral caſes related by the late Sir William Fordyce:* but it may be remarked, that ulcers, and other complaints, which continue after a properly conducted courſe of mercury, are often rather to be conſidered as the veſtiges of the lues than the actual diſeaſe, and conſequently any other medicine poſſeſſing no antivenereal power, but improving the general habit of body, might be employed with equal ſucceſs. Admitting this, however, is not denying the utility of Sarſaparilla, which has been decidedly done by a late ingenious profeſſor.[f] It is in frequent uſe at moſt of the London hoſpitals, and we have known patients, after the uſe of mercury, much ſooner reſtored to health by this root than in our opinion could have been accompliſhed by any other medicine with which we are acquainted, eſpecially when employed in powder.

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[a] Vide *Hort. Kew.*

[b] See *P. Alpinus Plant. Ægypt. p.* 136. Alſo Fallopius, Amatus Luſitanus, Guilandinus, Tobias Aldinus, Monardes, &c. who all either think it the ſame, or of equal efficacy.

[c] See *Med. Obſ. & Inq. vol. i. p.* 173.

[d] *Lewis M. M. p.* 586.

[e] C. Bauhine ſtates its firſt introduction into Spain to be about the year 1573. But Monardes informs us, that it was brought from New Spain to Madrid twenty or thirty years before this time. The word Sarſaparilla is of Spaniſh origin. "Zarſa ſiquidem Hiſpanis rubrum; parra autem vitem, & parilla viticulam ſignificat." *C. Bauh. l. c.*

This root is alſo recommended in rheumatic affections, ſcrophula, and cutaneous complaints, or where an acrimony of the fluids prevails. It may be given in decoction or powder, and ſhould be continued in large doſes for a conſiderable time.

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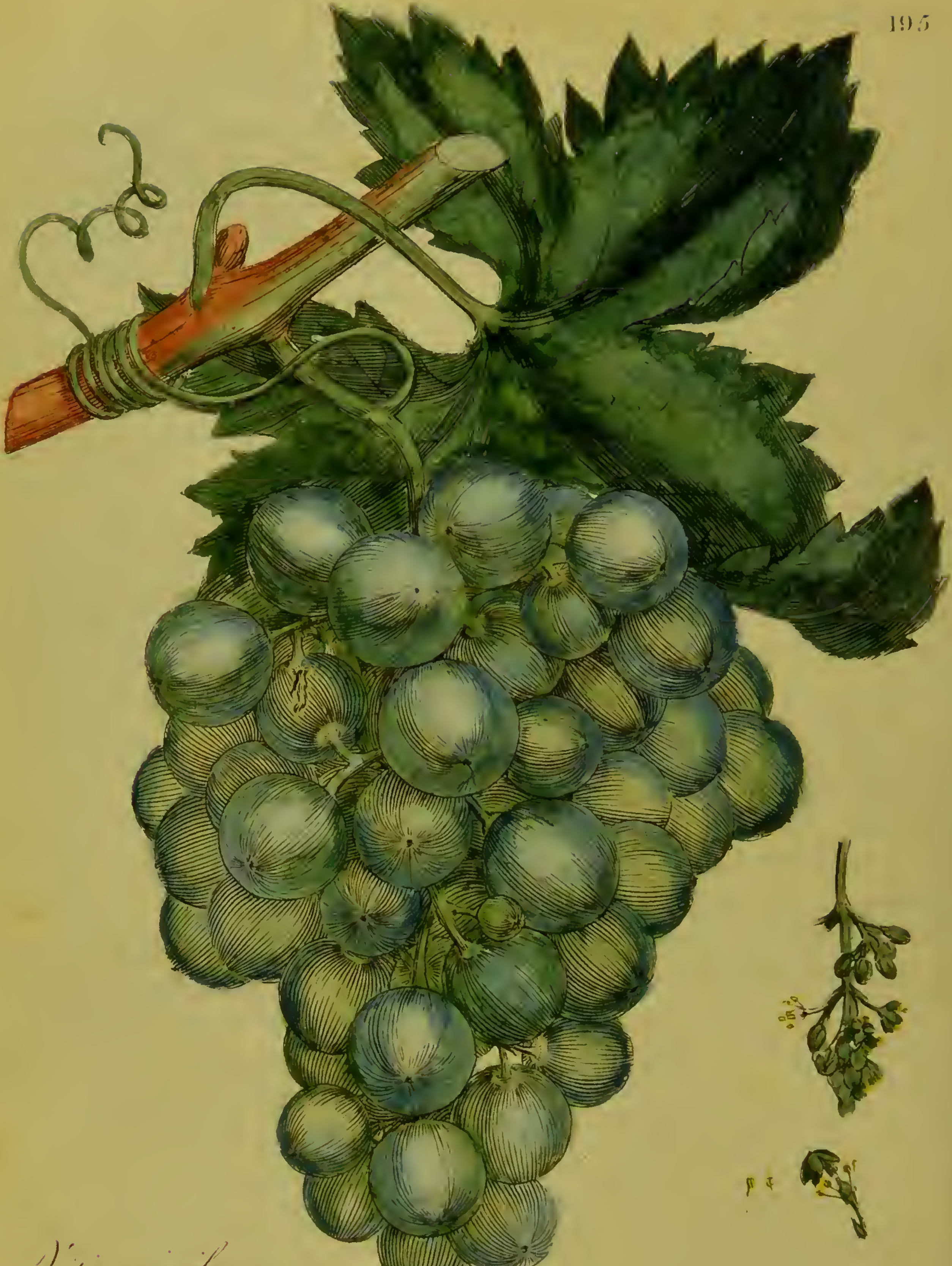
* *L. c.*

[f] *Dr. Cullen.*



Vitis vinifera

Publiſhed by Dr. Woodville. March. 1 1793

VITIS VINIFERA. COMMON VINE.

SYNONYMA. Vitis. *Pharm. Lond.* Vitis vinifera. *Baub. Pin. p.* 299. *J. Bauh. Hiſt. iii. p.* 67. *Gerard. Emac. p.* 875. *Park. Theat. p.* 1555. *Raii Hiſt.* 1613. *Kniph. Bot. orig. cent.* 6. *Duhamel. Arb. ii. p.* 360. *t.* 106. *Schmidel. Ic. plant. t. vii.*
β. Vitis corinthiaca s. apyrena. *Bauh. Hiſt. ii. p.* 72.

Claſs Pentandria. *Ord.* Monogynia. *Lin. Gen. Plant.* 284.

Eſſ. Gen. Ch. *Petala* apice cohærentia, emarcida. *Bacca* 5-ſperma, ſupera.

Sp. Ch. V. foliis lobatis ſinuatis nudis.

THE Vine ſends off numerous long ſlender climbing branches, and is covered with rough dark brown bark: the leaves are roundiſh, deeply ſerrated, commonly divided into three lobes, and ſtand alternately upon long footſtalks: the flowers are ſmall, and produced in ſpikes: the calyx is divided into five ſmall narrow ſegments: the petals are five, ſmall, oblong, whitiſh, withered, adherent at their apices, and ſoon fall off: the five filaments are tapering, and furniſhed with ſimple antheræ: the germen is egg-ſhaped, without any ſtyle, but ſupplied with a cylindrical ſtigma: the fruit is a large round berry, of one cell, and contains five hard ſeeds, of an irregular form. The flowers appear in June and July.

The Vine is a native of moſt of the temperate parts of the four quarters of the world, and is ſucceſsfully cultivated in our hemiſphere between the thirtieth and fifty-firſt degree of latitude. Through the effects of culture, and a difference of ſoil and climate, numerous varieties of grapes are produced, differing widely in ſhape, colour, and taſte, and affording wines, which are known to be extremely various. Vine leaves, called *pampini*, and the tendrils or *capreoli*, have an aſtringent taſte, and were formerly uſed in diarrhœas, hemorrhages, and other diſorders, requiring refrigerant and ſtyptic medicines. The juice, or ſap, of the Vine, named *lachryma*, has

been recommended in calculous diſorders, and is ſaid to be an excellent application to weak eyes, and ſpecks of the cornea. The unripe fruit has a harſh rough ſour taſte: its expreſſed juice, called verjuice, was much eſteemed by the ancients, but is now ſuperſeded by the juice of lemons; for external uſe however, particularly in bruiſes and ſprains, verjuice is ſtill employed, and conſidered to be a very uſeful application.

The dried fruit conſtitutes an article of the Materia Medica, under the name of uva paſſa, of which two kinds were formerly mentioned in our Pharmacopœias, viz. Uvæ paſſæ majores & minores, or raiſins and currents; the latter is a variety of the former, or the fruit of the Vitis corinthiaca ſeu apyrena, of C. B. The manner of preparing them is by immerſing them in a ſolution of alkaline ſalt, and ſoap lye made boiling hot, to which is added ſome olive oil and a ſmall quantity of common ſalt, and afterwards drying them in the ſhade.[a] Theſe fruits are uſed as agreeable lubricating aceſcent ſweets, in pectoral decoctions, and for obtunding the acrimony of other medicines, and rendering them grateful to the palate and ſtomach. They are directed in the Decoctum hordei compoſitum, Tinctura ſennæ, and Tinctura cardamomi compoſita.

Wine, or the fermented juice of the grape, of which there is a great variety; has by medical writers been principally confined to four ſorts, as ſufficient for officinal uſe. Theſe are the vinum album hiſpanicum, mountain; vinum canarium, canary or ſack; vinum rhenanum, rheniſh; and vinum rubrum, red port.

On a chemical inveſtigation, all wines conſiſt chiefly of water alcohol, a peculiar acid, the aërial acid, tartar, and an aſtringent gummy reſinous matter, in which the colour of red wines reſides, and which is expreſſed from the huſks of the grapes. They differ from each other in the proportion of theſe ingredients, and particularly in that of the alcohol, which they contain.

The qualities of wines depend not only upon the difference of the grapes, as containing more or leſs ſaccharine juice, and of the acid matter which accompanies it, but alſo upon circumſtances attending the proceſs of the fermentation. Thus, if the fermentation be incomplete, the wine may contain a portion of *muſt*, or unaſſimilated juice; or if it be too active, or too long protracted, it may be converted into vinegar.[b]

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[a] See Antill in *American Philoſophical Tranſact. vol. i. p.* 194.

New wines are liable to a ſtrong degree of aceſcency when taken into the ſtomach, and thereby occaſion much flatulency, and eructations of acid matter; heart-burn, and violent pains of the ſtomach from ſpaſms are alſo often produced; and the acid matter, by paſſing into the inteſtines, and mixing with the bile, is apt to occaſion colics, or excite diarrhœas. Sweet wines are likewiſe more diſpoſed to become aceſcent in the ſtomach than others; but as the quantity of alcohol which they contain is more conſiderable than appears ſenſibly to the taſte, their aceſcency is thereby in a great meaſure counteracted. Red port, and moſt of the red wines, have an aſtringent quality, by which they ſtrengthen the ſtomach, and prove uſeful in reſtraining immoderate evacuations; on the contrary, thoſe which are of an acid nature, as rheniſh, paſs freely by the kidneys, and gently looſen the belly. But this, and perhaps all the thin or weak wines, though of an agreeable flavour, yet, as containing little alcohol, are readily diſpoſed to become acetous in the ſtomach, and thereby to aggravate all arthritic and calculous complaints, as well as to produce the effects of new wine.

The general effects of wine are, to ſtimulate the ſtomach, exhilerate the ſpirits, warm the habit, quicken the circulation, promote perſpiration, and in large quantities to prove intoxicating, and powerfully ſedative.

In many diſorders wine is univerſally admitted to be of important ſervice, and eſpecially in fevers of the typhous kind, or of a putrid tendency; in which it is found to raiſe the pulſe, ſupport the ſtrength, promote a diaphoreſis, and to reſiſt putrefaction; and in many caſes it proves of more immediate advantage than the Peruvian bark. Delirium, which is the conſequence of exceſſive irritability, and a defective ſtate of nervous energy, is often entirely removed by the free uſe of wine. It is alſo a well-founded obſervation, that thoſe who indulge in the uſe of wine, are leſs ſubject to fevers, both of the malignant and intermittent kind. In the putrid ſore throat, in the ſmall-pox, when attended with great debility and ſymptoms of putreſcency, in gangrenes, and in the plague, wine is to be conſidered a principal remedy. And in almoſt all caſes of languors, and of great proſtation of ſtrength, wine is experienced to be a more grateful and efficacious cordial than can be furniſhed from the whole claſs of aromatics.

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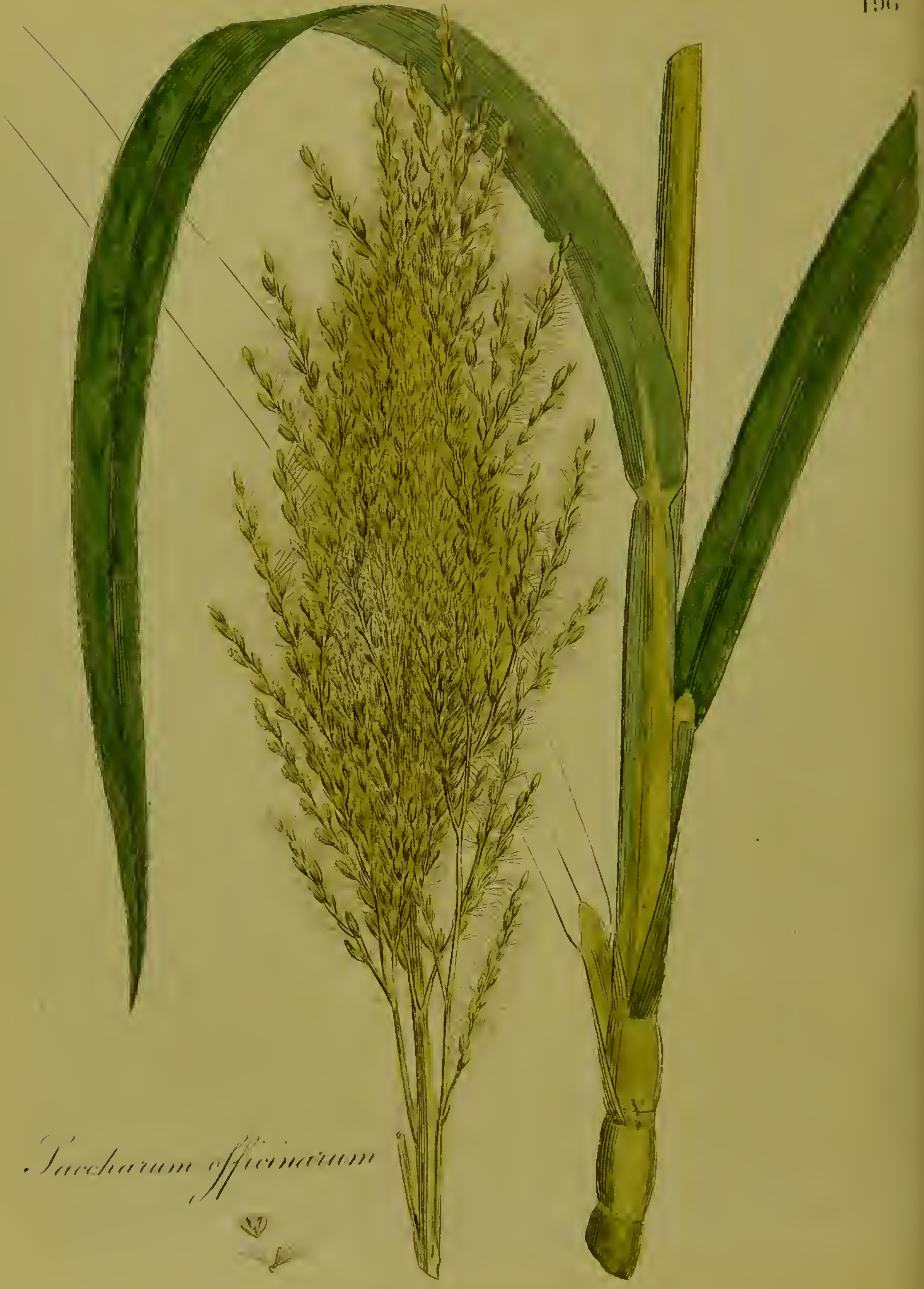
[b] See *Cullen M. M. vol. i. p.* 413.

The Tartar, which is thrown off from wines to the ſides and bottom of the caſk, is alſo an officinal article, and conſiſts of the vegetable alkali ſuperſaturated with acid. When taken from the caſk, it is found mixed with an earthy, oily, and colouring matter: that obtained from red wine is of deep brown colour, and commonly called red, and when it is of a paler colour, white tartar. It is purified by diſſolving it in boiling water, and ſeparating the earthy part by filtering the boiling ſolution. On cooling the ſolution, it depoſits irregular cryſtals, containing the colouring matter, which is ſeparated by boiling the maſs with white clay. The tartar, thus purified, is called cream of tartar. If this be expoſed to a red heat, its acid flies off, and what remains is the vegetable alkali, or ſalt of tartar.

Cryſtals of tartar are in common uſe as a laxative and mild cathartic; they are alſo eſteemed for their cooling and diuretic qualities, and therefore have been much employed in dropſies, and other caſes requiring an antiphlogiſtic treatment. Dr. Cullen ſays, "that in large doſes they act like a purgative in exciting the action of the abſorbents in every part of the ſyſtem, and that more powerfully than happens from the operation of any entirely neutral ſalt;" and hence is founded their utility in the cure of dropſy. It muſt be remarked, however, that they do not readily paſs off by the kidneys, unleſs taken with a large quantity of water; and therefore when intended as a diuretic they ought to be given in a liquid form, as Dr. Home has directed. The doſe is to be regulated according to the circumſtances, from a dram to two ounces. Theſe ſalts enter ſeveral officinal compoſitions.

Another article to be noticed here is Vinegar, which has been eſteemed of great uſe in almoſt all inflammatory and putrid diſorders, whether internal or external. Bergius ſays, it is refrigerans, reſolvens, antiputridenoſa, alexiteria, antiphlogiſtica, digeſtiva, antiſcorbutica, diaphoretica. It is very efficacious in counteracting the effects of vegetable poiſons, eſpecially thoſe of the narcotic kind. Inhaled in the form of a vapour, it is found uſeful in the putrid ſore throat; and



Saccharum officinarum

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and it has been given ſuccefsfully in mania, and in rabies canina. Diſtilled and neutralized with volatile alkali, it forms the aqua ammoniæ acetatæ, or ſpiritus Mindereri, a medicine of common uſe in fevers. By diſtillation, however, the vinegar generally contracts an empyreumatic taſte, and is ſeldom found in a rightly concentrated ſtate; when required to be of great ſtrength, it may be rendered ſo by freezing it, after the manner we have directed for concentrating the juice of lemons.

Vinegar is alſo much employed as a menſtruum, or for extracting the virtues of other medicines.

SACCHARUM OFFICINARUM. COMMON SUGAR CANE.

Saccharum non purificatum, & purificatum. *Pharm. Lond.*

SYNONYMA. Arundo ſaccharifera. *Bauh. Pin. p.* 18. *Park. Theat. p.* 1210. Arundo ſaccharina. *Gerard. Emac. p.* 38. *Raii Hiſt. p.* 1278. *Conf. Sloane's Jamaica, tom. i. p.* 108. *t.* 66. *Rumph. Herb. Amb. tom.* 5. *p.* 186. *t.* 74. *f.* 1. *Hughes's Barbadoes, p.* 244. *t.* 23. *f.* 1. *Browne's Jamaica, p.* 129. *Cazaud in Phil. Tranſ. vol.* 69. *P.* 1. *t.* 3.

Claſs Triandria. *Ord.* Digynia. *Lin. Gen. Plant.* 73.

Eſſ. Gen. Ch. *Cal.* 2-valvis, lanugine involucratus. *Cor.* 2-valvis. *Hort. Kew.*

Sp. Ch. S. floribus paniculatis, foliis planis.

THE root is perennial, knotted, and fibrous: the ſtem is ſimple, or undivided, jointed, ſmooth, about two inches in diameter, and riſes from eight to eighteen feet in height: the leaves are long, ſimple, ſword-ſhaped, and embrace the ſtem: the flowers are ſmall, and produced in a terminal looſe panicle: the calyx is a gluma of two valves, which are oblong, or lance-ſhaped, pointed, erect, concave, equal, and the baſe ſurrounded with long woolly hairs: the corolla is compoſed of two valves, ſhorter than thoſe of the calyx, and of a fine delicate texture: the nectarium is divided into two leafits: the filaments are three, capillary, of the length of the corolla, and furniſhed with oblong antheræ: the germen is oblong, and ſupports two feathered ſtyles, terminated by a plumoſe ſtigma: the ſeed is oblong, and is inveſted by the corolla.

The Sugar Cane is a native of Africa, and Lower Aſia, as the Eaſt Indies and Arabia felix; it is alſo ſaid to grow ſpontaneouſly in America; but others aſſert that it was unknown in theſe regions till Europeans poſſeſſed it. For a conſiderable time however it has been induſtriouſly cultivated in the American Iſlands ſituated within the tropics, and was two centuries ago introduced into the garden of that aſſiduous botaniſt Mr. Gerard.

We have before remarked on the ſubject of manna, that ſeveral vegetables ſecrete a ſweet or ſaccharine juice, eaſily converted into ſugar. The Arundo Bambo L. diſtils from its joints a fluid, which, by the heat of the ſun, concretes into ſugar, and is collected for uſe.[a] A conſiderable quantity of Sugar is annually obtained in America from the Acer ſaccharina, a ſpecies of Maple. The inhabitants of New Spain procure Sugar from the Agave americana: it is likewiſe obtained from the Aſclepias ſyriaca, and Zea Mays. Nor are the inhabitants of the northern regions wholly deſtitute of vegetables which furniſh this uſeful article; for at Kamſchatſka it is produced from the Heracleum Syphondylium and fucus ſaccharinus.[b]

The plant here figured affords the Sugar in common uſe, which is prepared from its expreſſed juice, boiled with the addition of quick lime, or the common vegetable alkali.[c] The boiling is repeated in ſmaller and ſmaller veſſels, during which it is often neceſſary to ſcum the impurities, and employ additional alkali; when the juice acquires a due conſiſtence, it is ſuffered to cool in a proper veſſel, and the ſaccharine matter concretes into a cryſtalized maſs. This, after being ſeparated from the melaſſes, is ſold under the name of brown or moiſt Sugar; the ſaccharum non purificatum, of the London Pharmacopœia.

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[a] See *Piſon. Mant. Aromat. p.* 186. It is alſo procured from the Boraſſus flabelliformis & Cocos nucifera.

[b] Several roots and fruits likewiſe afford Sugar. [c] The uſe of this is to imbibe the ſuperfluous acid.

This Sugar may be purified in conical moulds, by ſpreading on the upper broad ſurface ſome moiſt clay, which gradually transfuſes its watery moiſture through the maſs of Sugar, and carries with it a conſiderable part of the remains of the treacly matter; it is then called clayed Sugar. The ſaccharum purificatum, or loaf Sugar, is prepared in this country from the other Sugar boiled in water, to which is added lime water, alſo bullocks blood, or eggs, or commonly both; theſe are found to clarify the Sugar, by incorporating with its oily and mucilaginous parts, and forming a ſcum, which is carefully taken off. After ſufficient clarification it is ſtrained through a woollen cloth, and boiled again until it becomes of a proper conſiſtence; it is then poured into a refrigeratory, and when duly cooled, into conical moulds made of clay, and perforated at the apex, which is placed downwards: at firſt the aperture at the apex of the mould is ſtopped up, but as the Sugar concretes it is opened, in order that the ſyrup or melaſſes may drain off. By this draining of the fluid part, the cone of Sugar ſhrinks at the baſe below the edges of the mould, which, to render the loaf ſtill whiter, is filled up with moiſt clay cloſely applied to the baſe of the Sugar cone: laſtly, the cone is placed upon its baſe, taken out of the mould, wrapped in paper, and dried or baked in a cloſe oven.

Solutions of brown or white Sugars, boiled down until they begin to grow thick, and then removed into a very hot room, ſhoot upon ſticks placed acroſs the veſſels for that purpoſe into brown or white cryſtals of candy, (ſaccharum cryſtalinum).

Sugar, as an article of diet, is ſo well known as not to require any deſcription of it here: it is manifeſtly a neutral ſaline ſubſtance, the acid of which Bergman firſt taught us to ſeparate by means of the nitrous acid:[d] and it ſince appears that ſeveral other ſubſtances, both vegetable and animal, contain an acid ſimilar to that of Sugar.[e] The [illegible] conſtituent parts of Sugar ſeem to be an oily and mucilaginous matter; and though it is not yet ſatisfactorily explained how a combination of theſe ſubſtances ſhould produce on the organs of taſte a ſenſation of ſweetneſs, yet as it is known that the ſtrong vitriolic acid becomes ſweet by uniting it to ſpirit of wine, we may eaſily conceive that the ſweetneſs of Sugar may be effected in a ſomewhat ſimilar way.

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[d] See his *Diſſ. de acido ſacchari, publiſhed in* 1776. [e] See *Berthollet in Mem. de l'Acad.* &c. 1780. *p.* 120. Alſo *Scheele in Vet. Acad. Handl.* 1785. *p.* 23. *ſq.*

From the known properties of Sugar, it has been ſuppoſed to unite the unctuous part of the food with the animal juices, and hence it has been thought to increaſe corpulence or fatneſs; others however have thought that a contrary effect would be produced by this quality of ſugar, viz. by preventing the ſeparation of the oily matter from the blood, which forms fat. Profeſſor Murray, who has treated this ſubject very elaborately,[f] thinks that by the fermentation which Sugar undergoes in the ſtomach, and by its relaxing reſolvent ſaponaceous qualities, as well as by the acid which it contains, it rather tends to emaciate than to fatten the body; and in this opinion he obſerves that he has the authority of Boerhaave, who ſays if this ſweet be taken in large quantities it produces emaciation by diſſolving too much of the animal oil. He is therefore much ſurpriſed, that Mr. John Hunter ſhould lately recommend Sugar and honey as the beſt reſtoratives to thoſe ſuffering from great debility by a long courſe of mercury.[g] What may be the effects of Sugar in this reſpect in its refined ſtate may be difficult to determine; but in its crude ſtate there can be no doubt of its affording a conſiderable ſhare of nouriſhment, both as combined in various vegetable matters, and as ſeparated by art. Thoſe animals, which wholly feed upon it in the Sugar iſlands, become remarkably corpulent; and the negro children, whoſe diet happens ſometimes for a ſeaſon to be confined to melaſſes, are eaſily diſtinguiſhed from others by their ſuperior bulk;[*] they are however more diſpoſed to ſuffer by worms, and are likewiſe leſs active and healthy.

Sugar however appears by the experiments of ſeveral writers to prove deleterious to various kinds of worms, either by immerſing them in a ſolution of Sugar, or ſprinkling it upon their bodies;[h] and twenty grains of lump Sugar forced into the ſtomach of a frog, produced immediate torpor and death, which followed in the courſe of an hour:[i] it alſo proved fatal to pigeons, and to the gallinæ kind, but not to ſparrows; and with ſheep and dogs it had no other effect than that of a cathartic.[k]

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[f] See *App. Med. vol.* 5.

[g] He ſays, "Miror ideo, quod adhuc nuper Cl. J. Hunter (Treatiſe on the Venereal diſeaſe, p. 354. ſq.) ſaccharum tanquam optimum reſtaurans in hominibus diuturno jejunio debilitatis vel mercurii uſu emaciatis propoſuerit, &c." *L. c. p.* 410.

[*] In Aſia, Elephants and other animals are fed upon Sugar. See *Abridgment of Evidence on Slave Trade.*

Sugar may certainly be taken into the ſtomach in pretty large quantities without producing any bad conſequences, though proofs are not wanting of its miſchievous effects, in which, by its attenuating and diſſolving the fluids, and relaxing the ſolids, debility and diſeaſe are ſaid to have been produced. Stark[l] for many days took from four ounces of Sugar to eight, ten, ſixteen, and even twenty, with bread and water, by which nauſea, flatus, ulceration in the mouth, with redneſs and tumefaction of the gums, oppreſſion, purging, pain, and redneſs of the right noſtril, bleeding at the noſe, and livid ſtreaks over the right ſcapula, were produced. We are alſo told that a boy who was much affected by acidity of the ſtomach, in a ſhort time greedily ate a large quantity of lump Sugar; ſoon afterwards he was taken ill, and the next morning found dead in his bed. Upon examining his body, red ſpots, and other marks of a diſſolved ſtate of the blood were diſcovered.[m] What degree of credit ought to be given to theſe and other caſes of the like kind, we leave to the judgment of our readers: but that the liberal uſe of Sugar to many ſtomachs has greatly impaired the digeſtive powers, and laid a foundation for various complaints, is highly probable. At the ſame time we muſt admit, that ſeveral indulge largely in this article, if not with advantage, at leaſt with impunity.

As a medicine, Sugar cannot be conſidered to poſſeſs much power. Dr. Cullen claſſes it with the attenuantia; and Bergius ſtates it to be ſaponacea, edulcorans, relaxans, pectoralis, vulneraria, antiſeptica, nutriens. In catarrhal affections both ſugar and honey are frequently employed: it has alſo been advantageouſly uſed in calculous complaints; and from its known power in preſerving animal and vegetable ſubſtances from putrefaction, it has been given with a view to its antiſeptic effects. The candy, by diſſolving ſlowly in the mouth, is well ſuited to relieve tickling coughs and hoarſeneſs. The uſe of Sugar in various medicinal compoſitions is too obvious to require being particularly pointed out.

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[h] See *Redi obſ. de animalcul. vivis in corp. viv. p.* 166. *ſq.*

[i] *Carminati Opuſc. Therap. vol.* i. *p.* 113.

[k] *Carm. l. c.*

[l] Vide *Clinical & anatomical obſervations with experiments dietetical & ſtatical.*

[m] *Rezia in Carminati, l. c. p.* 129.

ULMUS CAMPESTRIS. COMMON ELM.

SYNONYMA. Ulmus. *Pharm. Lond. & Edinb.* Ulmus campeſtris et Theophraſti. *Bauh. Pin. p.* 426. Ulmus vulgaris. *Park. Theat. p.* 1404. Ulmus vulgatiſſima folio lato, ſcabro. *Gerard. Emac. p.* 1480. *Raii Hiſt. p.* 1425. *Synop. p.* 468. *Hall. Stirp. Helv. n.* 1586. U. campeſtris. *Hudſon Flor. Ang. p.* 109. *Withering Bot. Arr. p.* 258. *Relhan Flor. Cant. p.* 106. *Ic. Flor. Dan.* 632. *Evelyn's Sylva by Hunter. p.* 118.

Claſs Pentandria. *Ord.* Digynia. *Lin. Gen. Plant.* 316.

Eſſ. Gen. Ch. *Cal.* 5-fidus. *Cor.* nulla. *Bacca* exſucca, compreſſo-membranacea.

Sp. Ch. U. foliis duplicato-ſerratis; baſi inæqualibus.

THIS is very common in the neighbourhood of London, where it grows to a conſiderable height, ſends off ſtrong branches, and is covered with rough cracked brown bark: the leaves are ovate, rough, doubly ſerrated, and ſtand alternately upon ſtrong footſtalks: the flowers appear before the leaves, on ſhort ſpikes at the bottom of the leaf-buds: the calyx is turban-ſhaped, wrinkled, permanent, and divided at the border into five ſegments: there is no corolla: the five filaments are tapering, twice as long as the calyx, and furniſhed with ſhort upright antheræ, marked with four furrows: the germen is round, compreſſed, upright, and ſupports two ſtyles, which bend outwards, and are terminated by downy ſtigmata: the fruit is an oval large

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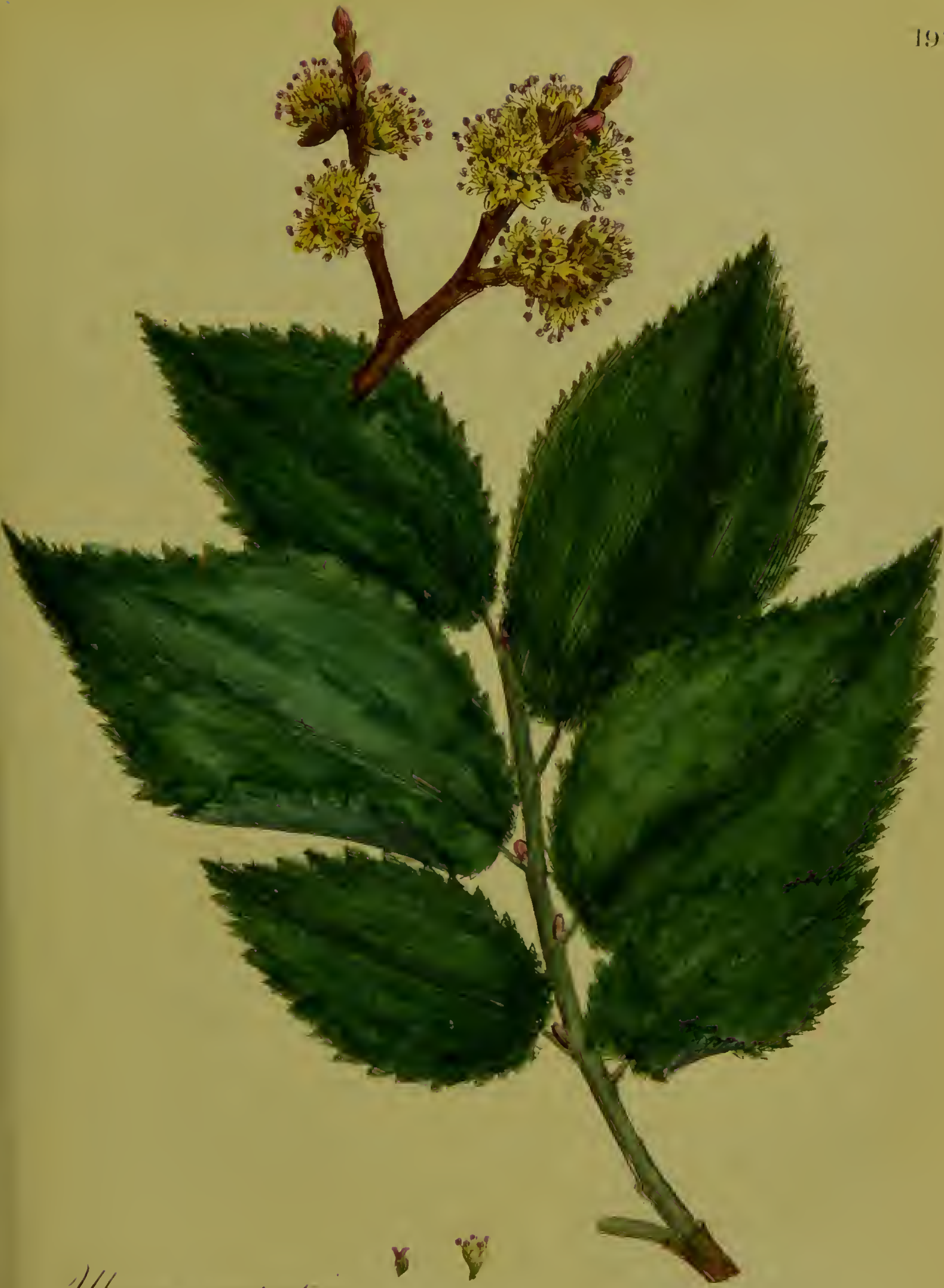

Ulmus campestris

Publiſhed by Dr. Woodville April 1 1793

large berry, which is without juice, and of a membranous texture: the ſeed is round, but ſomewhat compreſſed.

This tree, of which there is one variety with ſmaller leaves, and another with ſmooth leaves, grows plentifully in Worceſterſhire and Middleſex, but is ſaid not to be found to the north of Stamford.

The inner tough bark, which is directed for uſe by the Pharmacopœias, has no remarkable ſmell, but has a bitteriſh taſte, and abounds with a ſlimy juice, which has been recommended in nephritic caſes, and externally as a uſeful application to burns. The external bark is brittle, contains but little mucilage, and is wholly deſtitute of both ſmell and taſte. The internal bark of the branches is more bitter than that of the trunk, and therefore probably more efficacious.

The complaints for which it is chiefly recommended, are thoſe of the cutaneous kind allied to herpes and lepra. Dr. Lyſons[a] mentions five caſes of inveterate eruptions, both dry and humid, or thoſe forming incruſtations, which were ſucceſsfully treated by a decoction of this bark, prepared from four ounces of it taken freſh, and boiled in two quarts of water to one; of this the patients were uſually directed to drink half a pint twice a day. But as he added nitre to the decoction, and alſo frequently had recourſe to purgatives, it may be doubted if theſe cures ought to be wholly aſcribed to the Elm bark.

Dr. Lettſom[b] found this bark moſt effectual in what he ſuppoſes to be the lepra ichthyoſis of Sauvages, in which it ſucceeded after all the medicines uſually employed in ſuch caſes had failed. A remarkable inſtance of its efficacy alſo in lepra vulgaris, affecting the whole body, is related by Banau;[c] who propoſes the uſe of Elm bark in various other diſeaſes, as fluor albus, rheumatiſm, old ulcers, cancerous and ſcrophulous affections, tinea capitis, ſcurvy, &c. In very obſtinate caſes it is neceſſary to perſevere in the uſe of the decoction for ſome months.

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[a] See *Med. Tranſactions, vol. ii. p.* 203.

[b] See *Medical Memoirs, p.* 152.

[c] See *Journ. de Paris,* 1783. *n.* 255.

SALIX FRAGILIS.

SALIX FRAGILIS. CRACK WILLOW.

SYNONYMA. Salix. *Pharm. Edinb.* Salix folio longo latoque ſplendente, fragilis. *Raii Synop. p.* 448. Salix fragilis. *Bauh. Pin. p.* 474. *Hall. Stirp. Helv. n.* 1638. *Hudſon. Flor. Ang. p.* 426. *Withering. Bot. Arr. p.* 1102. *Relhan. Flor. Cant. p.* 365. *Flor. Lap. t.* 8. *f.* 6. *Hunter's Evelyn's Sylva*, *p.* 245.

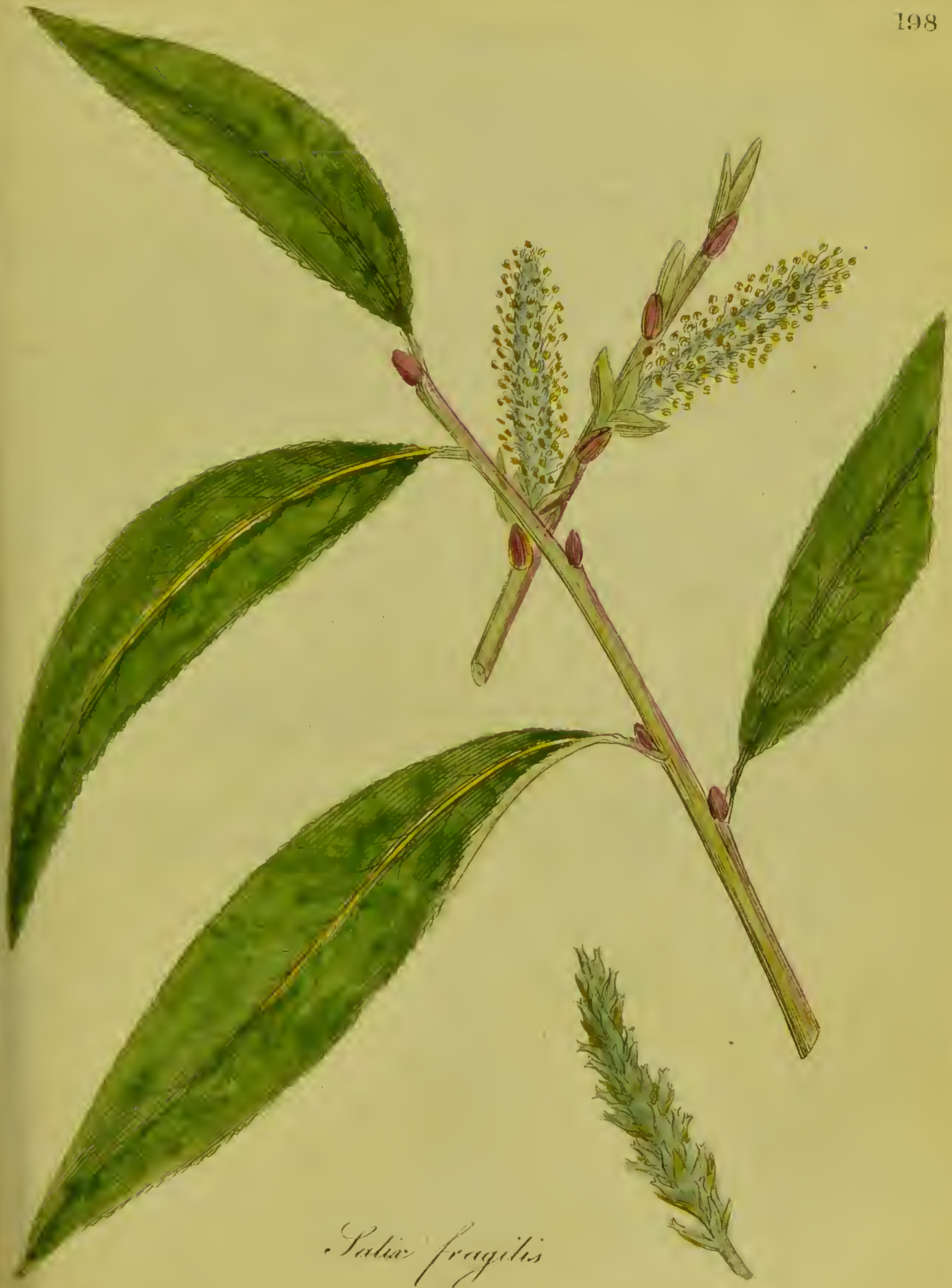
Claſs Dioecia. *Ord.* Diandria. *Lin. Gen. Plant.* 1098.

Eſſ. Gen. Ch. MASC. *Amenti* ſquamæ. *Cor.* o. *Glandula* baſeos nectarifera.

FEM. *Amenti* ſquamæ. *Cor.* o. *Stylus* 2-fidus. *Caps.* 1-locularis, 2-valvis. *Sem.* pappoſa.

Sp. Ch. S. foliis ſerratis glabris ovato-lanceolatis, petiolis dentato-glanduloſis.

THIS ſpecies grows to a conſiderable height, ſending off large branches, and is covered with wrinkled bark of a grey colour: the leaves are long, narrow, ovate, or lance-ſhaped, ſerrated, and placed upon footſtalks, which are furniſhed with glandular teeth: the flowers are male and female upon different trees, and produced in catkins: the calyx, or common catkin of the male flower, is oblong, imbricated; incloſed by an involucrum formed of a bud, and conſiſting of ſcales, which are oblong, flat, expanding, and unifloral: there is no corolla: the nectarium is a ſmall cylindrical truncated gland, containing honey, and placed in the centre of the flower: the filaments are two, ſtraight, filiform, longer than the calyx, and furniſhed with double antheræ of four cells: in the female flower the ſcaly catkin reſembles that of the male: the germen is egg-ſhaped, tapering, ſo as to leave no diſtinct ſtyle, and is longer than the ſcales: the ſtigmata are two, bifid and erect: the capſule is ovate, one-celled, and furniſhed



Salix fragilis

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niſhed with two valves which roll back: the ſeeds are numerous, egg-ſhaped, very ſmall, and crowned with a ſimple hairy pappus. The flowers appear in April and May.

This tree, which grows in hedges and about the banks of rivers in ſeveral parts of England, is eaſily to be diſtinguiſhed from the other ſpecies of willow, by the readineſs with which it breaks at the year's ſhoot laſt made upon being ſlightly ſtruck with the finger; and hence the name *fragilis*.

The bark of the branches of this tree manifeſts a conſiderable degree of bitterneſs to the taſte, and is alſo aſtringent; hence it has been thought a good ſubſtitute for the Peruvian bark, and upon trial was found to ſtop the paroxyſms of intermittents:[a] it is likewiſe recommended in other caſes requiring tonic or aſtringent remedies. Not only the bark of this ſpecies of Salix, but that of ſeveral others, poſſeſs ſimilar qualities, particularly of the Salix alba & S. pentandria, both of which are recommended in the foreign pharmacopœias. But in our opinion the bark of the S. triandria is more effectual than that of any other of this genus; at leaſt its ſenſible qualities give it a decided preference.

[a] See *Gerhard. Mat. Med. p.* 301. *Phil. Tranſact. vol.* 53. *p.* 195. And *Medical Comment. vol.* 5. *p.* 298. Inſtances of the efficacy of Willow bark are alſo related by Cloſſius (*nov. variol. Med. Meth. p.* 128.) And Gunz. *Diſſ. binæ de cortice ſalicis. Lips.* 1772.

With Bergius however this bark did not ſucceed. He ſays, Ego hunc corticem in febribus intermittentibus iterum iterumque exhibui, ſed irrito conatu.

CYNARA SCOLYMUS. COMMON ARTICHOKE.

SYNONYMA. Cinara. *Pharm. Lond. & Edinb.* Cinara hortenſis foliis non aculeatis. *Bauh. Pin. p.* 383. Cinara maxima alba. *Gerard. Emac. p.* 1153. Cinara ſativa alba. *Park. Parad. p.* 519. Carduus ſive Scolymus ſativus non ſpinoſus. *J. Bauh. Hiſt. vol. iii. p.* 48. *Raii Hiſt. p.* 299. .

α Cinara hortenſis aculeata. C. B. *French Artichoke.*

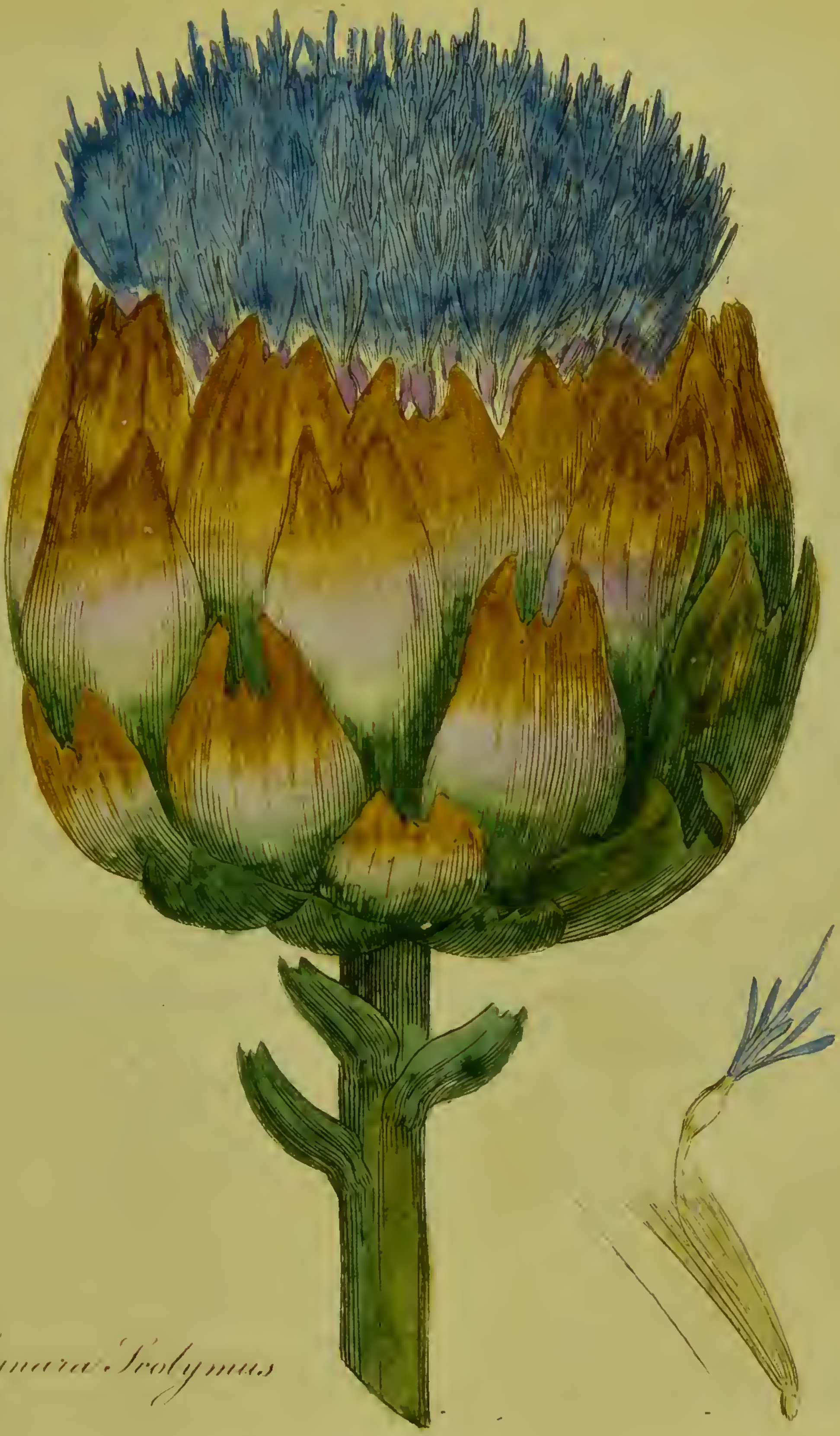
β C. hortenſis foliis non aculeatis. C. B. *Globe Artichoke.*

Claſs Syngeneſia. *Ord.* Polygamia Æqualis. *Lin. Gen. Plant.* 928.

Eſſ. Gen. Ch. *Cal.* dilatatus, imbricatus ſquamis carnoſis, emarginatis cum acumine.

Sp. Ch. C. foliis ſubſpinoſis pinnatis indiviſiſque, calycinis ſquamis ovatis.

THE root is perennial, large, and fibrous: the ſtem is thick, ſtrong, branched, ſtriated, and riſes about three feet in height: the leaves are large, of an irregular ſhape, pinnatifid, obtuſe, bent downwards, and ſtand upon ſtrong ſcored footſtalks; on the upper ſide they are ſmooth and veined, and on the under reticulated, hoary, and downy: the flowers terminate the ſtem and branches upon thick fleſhy peduncles: the common calyx is globular, three or four inches in diameter, and compoſed of numerous ovate ſcales, which at the baſe are thick and fleſhy, at the apex tough, membranous, ſhining, notched, but with a ſpinous point in the centre: the florets of the corolla are numerous, blue, and equal in ſize, each conſiſting of one leaf, which is funnel-ſhaped, and at the baſe forms a ſlender tube; at the limb it is erect, and divided into five ſegments; five filaments, which



Cynara Scolymus

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which are capillary, very ſhort, and furniſhed with antheræ, which form a cylindrical tube of the length of the corolla, and five toothed: a germen of an ovate form, which ſupports a ſlender ſtyle, longer than the ſtamina, and terminated by a ſimple, oblong, notched ſtigma: the ſeeds are oblong, obſcurely quadrangular, and furniſhed with a long ſeſſile feathery pappus: the receptacle is briſtly. It flowers in Auguſt and September.

The Artichoke is a native of the ſouthern parts of Europe. It was cultivated here by Turner;[a] and as a culinary article it is common in moſt kitchen gardens.

The receptacles, or bottoms of the heads, and the fleſhy part of the ſcales are uſually eaten, and though thought by Galen to generate bile and melancholy, are wholeſome and nutritious. The Arabians noticed their diuretic qualities, and therefore deemed them uſeful to carry off morbid matter by the kidneys.[b]

The leaves are bitter, and afford by expreſſion a conſiderable quantity of juice, which when ſtrained and mixed with an equal part of white wine, has been given ſucceſsfully in dropſies;[c] for this purpoſe two or three ſpoonfuls of the mixture are to be taken night and morning. An infuſion of the leaves are likewiſe diuretic, and may be employed with the ſame intention.

[a] Antecedent to the year 1551.

[b] See *Sebizius de Aliment. facult. p.* 346.

[c] Vide *Journal etranger*, and Aaſkow in *Act. Soc. Med. Havniens. vol. i. p.* 201.

CINCHONA OFFICINALIS. OFFICINAL CINCHONA; Or PERUVIAN BARK TREE.

Peruvianus cortex. *Pharm. Lond. & Edinb.*

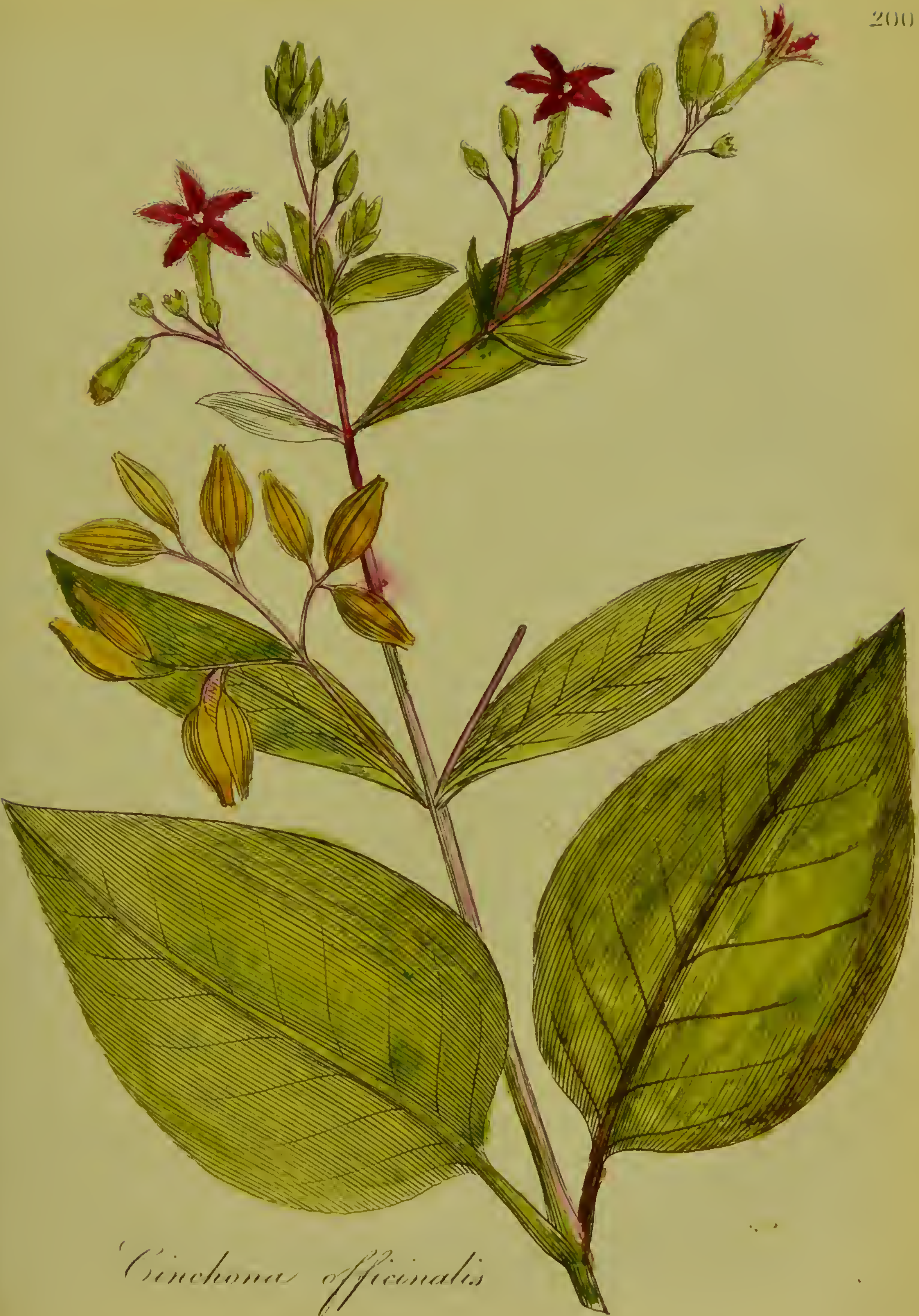
SYNONYMA. Quinquina. *De La Condamine*, in *Mem. de L'Acad. des Scien. de Paris.* 1738. *p.* 226. *cum icone tab.* 5. 6. recuſa in *Roſén. Diſſ. de Cort. peruv. Lurſen. Diſſ. de Cort. peruv. et Pultney. Diſſ. de Cinchona off.*

Claſs Pentandria. *Ord.* Monogynia. *Lin. Gen. Plant.* 228.

Eſſ. Gen. Ch. *Cor.* infundibulif. apice lanata. *Caps.* infera, 2-locularis, diſſepimento parallelo.—*Sem.* imbricata. *Jacq.*

Sp. Ch. C. foliis ellipticis ſubtus pubeſcentibus corollæ, limbo lanato.

THIS tree is very lofty, ſending off large branches, covered with rough brown bark: the leaves vary from an ovate to an elliptical ſhape, the larger approaching more to the former, and the ſmaller to the latter figure; they are all entire, nerved, ſmooth on the upper ſide, on the under tomentoſe, and ſtand in pairs upon footſtalks: the flowers are produced in panicles, and ſtand upon ſlender pedicles: the calyx is ſmall, bell-ſhaped, and cut at the margin into five minute ſegments: the corolla is funnel-ſhaped, conſiſting of a long cylindrical tube, divided at the limb into five ſegments, which are ovate, or oblong, ſpreading, on the upper ſide red, on the under woolly, and fringed at the edges: the five filaments are briſtly, placed in the middle of the tube, and furniſhed with oblong antheræ, twiſted in a ſpiral manner: the germen is ovate: the ſtyle is filiform, ſomewhat longer than the ſtamina, and furniſhed with a round ſtigma: the capſule divides into two parts, the cells of which are ſeparated by a parallel partition; the ſeeds are ſmall and numerous.



Cinchona officinalis

Publiſhed by Dr. Woodville April 1. 1793.

This figure we have not ſcrupled to copy from that given by Monſ. de la Condamine,[a] whoſe deſcription of this tree, though publiſhed more than fifty years ago, being the reſult of a careful examination of the living tree in its native ſoil, is ſtill the only one on which we can with confidence rely.

It is a native of Peru, growing moſt abundantly on a long chain of mountains extending to the north and ſouth of Loxa, where its trunk frequently exceeds in bulk the body of a man. According to Mr. Arrot, the ſoil in which theſe trees thrive beſt, is generally a red clayey or rocky ground, and eſpecially on the banks of ſmall rivers deſcending from the high mountains.[b] This author alſo informs us, that the propereſt ſeaſon for cutting off the bark is from September to November, and the manner of conducting this we have related in Mr. Arrot's own words.* On the trees being entirely ſtripped of their bark they ſoon periſh; and as the number of theſe trees to which acceſs could be had, was ſaid to be not very conſiderable, it has been ſuppoſed that a ſufficient quantity of bark to ſupply the demand, could not long be procured. Condamine, however, aſſerts that the young trees do not die by loſing their bark, but ſend out freſh ſhoots from the baſe, and as thoſe which are ſuffered to become old have time to diſſeminate and propagate, we truſt the fear of exhauſting this valuable medicine is wholly groundleſs.

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[a] *L. c.* [b] *Phil. Tranſ. vol.* 40, *p.* 83.

* "The propereſt ſeaſon for cutting the bark is from September to November, "the only time in the whole year of ſome intermiſſion from the rain in the mountains. "Having diſcovered a ſpot where the trees moſt abound, they firſt build huts for the "workmen, and then a large hut wherein to put the bark in order to preſerve it from "the wet; but they let it lie there as ſhort a time as poſſible, having beforehand cut "a road from the place where the trees grow, through the woods, ſometimes three "or four leagues, to the neareſt plantation or farm-houſe in the low country, whither, if "the rain permits them, they carry the bark forthwith to dry. Theſe preparations being "made, they provide each Indian (they being the cutters) with a large knife, and a "bag that will hold about fifty pounds of green bark: every two Indians take one tree, "whence they cut or ſlice down the bark, as far as they can reach from the ground; "they then take ſticks about half a yard long each, which they tie to the tree with "tough withs at proper diſtances, like the ſteps of a ladder, always ſlicing off the bark "as far as they can reach before they fix a new ſtep, and thus mount to the top, the "Indian below gathering what the other cuts: this they do by turns, and go from tree "to tree until the bag is full, which, when they have plenty of trees, is generally a day's "work for one Indian. As much care as poſſible muſt be taken that the bark is not cut "wet; ſhould it ſo happen, it is to be carried directly down to the low country to dry; "for otherwiſe it loſes its colour, turns black, and rots; and if it lie any time in the hut "without being ſpread, it runs the ſame riſk: ſo that while the Indians are cutting, the "mules if the weather permits ought to be carrying it down to the place appointed for "drying it, which is done by ſpreading it in the open air, and frequently turning it." l. c.

We ſeem to have no ſatisfactory account at what time, or by what means, the medicinal efficacy of the Peruvian Bark which is now ſo well eſtabliſhed, was firſt diſcovered. Some contend that its uſe in intermittent fevers was known to the Americans long before the Spaniards poſſeſſed Peru, but that they concealed this knowledge from the Europeans; and, on the contrary, it is aſſerted by others, that the Peruvians never ſuppoſed it to be fit for any medicinal uſe, but thought that the large quantities exported thence was for the purpoſe of dyeing, and they actually made ſome trials of its effects in this way.[a] Condamine ſays, that according to an ancient tradition, the Americans owe the diſcovery of this remedy to the lions, which ſome naturaliſts pretend are ſubject to a kind of intermitting fever, of which they were obſerved to be cured by inſtinctively eating the bark of the Cinchona. But Geoffroy ſtates, that the uſe of the bark was firſt learned from the following circumſtance:—Some cinchona trees being thrown by the winds into a pool of water, lay there till the water became ſo bitter that every body refuſed to drink it. However, one of the neighbouring inhabitants being ſeized with a violent paroxyſm of fever, and finding no other water to quench his thirſt, was forced to drink of this, by which he was perfectly cured. He afterwards related the circumſtance to others, and prevailed upon ſome of his friends who were ill of fevers to make uſe of the ſame remedy, with whom it proved equally ſucceſsful.[b] The uſe of this excellent medicine, however, was very little known till about the year 1638, when a ſignal cure having been performed by it on the Spaniſh viceroy's lady, the Counteſs del Cinchon, at Lima, it came into general uſe, and hence was diſtinguiſhed by the appellation pulvis comitiſſæ, or the Counteſs's powder; alſo called, cortex china china, or chinchina; kina kina, or kinkina; and quina quina, or quinquina. On the recovery of the Counteſs ſhe diſtributed a large quantity of the bark to the Jeſuits, in whoſe hands it acquired ſtill greater reputation, and by them it was firſt introduced into Europe,[e] and thence called cortex, or pulvis jeſuiticus, pulvis patrum; and alſo Cardinal de Lugo's powder, becauſe that charitable prelate bought a large quantity of it at a great expenſe for the uſe of the religious poor of Rome.

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[a] Ulloa, *Voyage de l'Amerique meridionale. T. i. p.* 271.

[b] *Mat. Med. Traité, p.* 78.

"This bark is brought to us in pieces of different ſizes, ſome rolled up into ſhort thick quills, and others flat: the outſide is browniſh, and generally covered in part with a whitiſh moſs: the inſide is of a yellowiſh reddiſh or ruſty iron colour. The beſt ſort breaks cloſe and ſmooth, and proves friable betwixt the teeth: the inferior kinds appear when broken of a woody texture, and in chewing ſeparate into fibres. The former pulverizes more eaſily than the latter, and looks, when powdered, of a light browniſh colour, reſembling that of cinnamon, or ſomewhat paler. It has a ſlight ſmell, approaching as it were to muſtineſs, yet ſo much of the aromatic kind as not to be diſagreeable. Its taſte is conſiderably bitter, aſtringent, very durable in the mouth, and accompanied with ſome degree of aromatic warmth, but not ſufficient to prevent its being ungrateful." ‡

Beſides this bark, that of ſeveral other ſpecies of Cinchona have been recommended for medical uſe by different authors, eſpecially the cortex peruvianus ruber, or red bark; alſo that of the cinchona caribæa, or the Jamaica bark; that of cinchona floribunda produced at St. Lucie; and that of two or three other ſpecies diſcovered at Santa Fé. The firſt of theſe "is in much larger and thicker pieces than the common, moſt of the pieces are concave, though not rolled together like the quilled bark. They break ſhort, like the beſt common bark, and appear evidently compoſed of three layers. The outer is thin, rugged, frequently covered with a moſſy ſubſtance, and of a reddiſh brown colour. The middle is thicker, more compact, and of a darker colour: it is very brittle and reſinous. The innermoſt layer is more woody and fibrous, and of a brighter red. In powdering this bark, the middle layer which ſeems to contain the greateſt proportion of reſinous matter, does not break ſo readily as the reſt; a circumſtance to be attended to, leſt the moſt active part ſhould be left out of the fine powder. This red bark to the taſte diſcovers all the peculiar flavour of the Peruvian Bark, but much ſtronger than the common officinal ſort. An infuſion in cold water is intenſely bitter, more ſo than the ſtrongeſt decoction of common bark. Its aſtringency is in an equal degree greater than that of the infuſion of common bark, as is ſhewn by the addition of martial vitriol. The ſpirituous tincture of the red bark is alſo proportionally ſtronger than that of the pale. The quantity of matter extracted by rectified ſpirit from the powder of the former, was to that from the latter as 3 to 2 in one experiment, and as 229 to 130 in another; and yet on infuſing the two reſiduums of the firſt experiment in boiling water, that of the red bark gave a liquor conſiderably bitter, and which ſtruck a black with martial vitriol; while that yielded by the other, was nearly taſteleſs and void of aſtringency."*

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[e] Louis the fourteenth, when Dauphin, was ſaid to be one of the firſt in Europe who experienced its efficacy.

‡ *Lewis, M. M. p.* 485.

Reſpecting the medicinal properties we have ſeveral reſpectable authorities, ſhewing, that as the red bark poſſeſſes the ſame virtues with the common, in a much higher degree,‡ ſo it has been found of more efficacy in the cure of intermittents: and hence it is thought to be that which, according to Arrot, the Spaniards called Caſcarilla colorada, and was probably the kind originally brought to Europe, and which proved ſo ſucceſsful in the hands of Sydenham, Morton, and Liſter; for it appears from the teſtimony of the oldeſt practitioners, that the bark firſt employed here was of a much deeper colour than the common bark.[a] The red bark was firſt imagined by Dr. Saunders[b] to be that of the trunk of full grown trees, the branches or young trees of which yield the pale or common bark; but this opinion the Doctor ſeems afterwards to have abandoned, for in the third edition of his pamphlet on this ſubject he ſays, "that he has lately ſeen ſome exceedingly good red bark imported by a Spaniſh merchant, a conſiderable part of which was as ſmall as the quilled bark in common uſe, &c. It was extremely reſinous, and gave evident proofs of its being the quill of the larger red bark which was in the ſame cheſt." If the pale and red bark were really the produce of the ſame ſpecies of Cinchona, the latter differing from the former only by acquiring greater maturity, we ſhould find the deepneſs of the colour of the pale bark to correſpond proportionably with its thickneſs or the ſize of the quill, which is certainly not the caſe. The Cinchona Caribæa is deſcribed and figured by Jacquin[a] and Dr. Wright;[b] it grows in Jamaica, where it is called the Sea Side Beech. According to Dr. Wright, the bark of this tree is not leſs efficacious than that of the Cinchona of Peru, for which it will prove an uſeful ſubſtitute; but by the experiments of Dr. Skeete it appears to have leſs aſtringent power.[c] The Cinchona floribunda, or bark tree of St. Lucie, a figure of which we find in Phil. Tranſ. alſo in Rozier's Obſervations ſur la Phyſique, affords a bark which is likewiſe ſaid to have been uſed with advantage; but notwithſtanding all that has been written to eſtabliſh its medicinal character,[d] it ſeems to us greatly inferior to that of the other ſpecies of this genus. In its recent ſtate it is conſiderably emetic and cathartic; properties, which in ſome degree it retains on being dried; ſo that the ſtomach does not bear this bark in large doſes, and in ſmall ones its effects are not ſuch as to give it any peculiar recommendation. Several ſpecies of Cinchona have lately been diſcovered at Santa Fé, yielding barks both of the pale and red kind; and which, from their ſenſible qualities, are likely upon trial to become equally uſeful with thoſe produced in the kingdom of Peru.[e]

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* Lewis, l. c. ‡ *Irving's and Skeete's Experiments.*

[a] Baker. *Med. Tranſ. Vol. iii. p.* 161. [b] *Obſervations on the ſuperior efficacy of the red Peruvian Bark in the cure of fevers.*

At preſent, the uſe of the bark is chiefly confined to the pale and red kind; and the nearer the former reſembles the latter, the more it is eſteemed.

"The Peruvian Bark yields its virtues both to cold and boiling water; but the decoction is thicker, gives out its taſte more readily, and forms an ink with a chalybeate more ſuddenly than the freſh cold infuſion. This infuſion, however, contains at leaſt as much extractive matter, but more in a ſtate of ſolution; and its colour on ſtanding with the chalybeate becomes darker, while that of the decoction becomes more faint. When they are of a certain age, the addition of a chalybeate renders them green; and when this is the caſe, they are found to be in a ſtate of fermentation, and effete. Mild or cauſtic alkalies, or lime, precipitate the extractive matter, which in the caſe of the cauſtic alkali is re-diſſolved by a farther addition of the alkali. Lime-water precipitates leſs from a freſh infuſion than from a freſh decoction; and in the precipitate of this laſt, ſome mild earth is perceptible. The infuſion is by age reduced to the ſame ſtate with the freſh decoction, and then they depoſit nearly an equal quantity of mild earth and extractive matter; ſo that lime-water as well as chalybeate, may be uſed as a teſt of the relative ſtrength and periſhable nature of the different preparations, and of different barks. Accordingly, cold infuſions are found by experiments to be leſs periſhable than decoctions; infuſions and decoctions of the red bark, than thoſe of the pale: thoſe of the red bark, however, are found by length of time to ſeparate more mild earth with the lime-water, and more extracted matter. Lime-water as precipitating the extracted matter appears an equally improper and diſagreeable menſtruum. Water has been found to ſuſpend the reſin by means of much leſs gum than has been ſuppoſed. Rectified ſpirit of wine extracts a bitterneſs, but no aſtringency, from a reſiduum of twenty affuſions of cold water; and water extracts aſtringency, but no bitterneſs, from the reſiduum of as many affuſions of rectified ſpirit. The reſidua of both are inſipid."*

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[a] *Amer. pict. tab.* 23. [b] *Phil. Tranſ. Vol.* 67. [c] *Exper. p.* 339.

[d] See *Kentiſh. Exp. and Obſerv. on the Peruvian Bark.* Davidſon in *Phil. Tranſ. Vol.* 74. *and Tranſ. of the American Phil. Soc. Vol.* 2. Mallet in *Mem. ſur le Quinquina de la Martinique, &c.*

[e] See *Memoria o Diſſertazione ſopra la nuova China del regno de St. Fé, &c.*

From many ingenious experiments made on the Peruvian Bark by Dr. Irving, publiſhed in a Diſſertation which gained the prize-medal given by the Harveian Society of Edinburgh in 1783, the power of different menſtrua upon Peruvian Bark, is aſcertained with greater accuracy than had before been done: and it appears, that with reſpect to comparative power, the following fluids act in the order in which they are placed: Dulcified ſpirit of vitriol: Cauſtic lye: French brandy: Rheniſh wine: Soft water: Vinegar and water: Dulcified ſpirit of nitre: Mild volatile alkali: Rectified ſpirit of wine: Mild vegetable alkali: Lime-water. The antiſceptic powers of vinegar and bark united are double their ſum taken ſeparately. The aſtringent power of the bark is increaſed by acid of vitriol; the bitter taſte is deſtroyed by it.

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* *Ed. New Diſpenſ. p.* 251.

Though the bark on its firſt introduction, and even ſome time afterwards, was reprobated by ſome eminent phyſicians as a dangerous remedy; yet theſe prejudices are entirely done away, and its character is now univerſally eſtabliſhed: ſo that the diſputes which at preſent ſubſiſt are confined to its mode of operation, or the manner in which it is moſt efficaciouſly adminiſtered. To detail theſe, however, or even to give a circumſtantial relation of the various ſtates of diſeaſe in which the bark might be advantageouſly employed, would far exceed our limits: we are therefore confined to ſtate briefly thoſe diſeaſes to which this medicine is more eſpecially adapted.

The bark firſt acquired its reputation for the cure of intermittent fevers, and in theſe, when properly exhibited, it rarely fails of ſucceſs. For this purpoſe, ſome practitioners prefer giving it juſt before the fit, ſome during the fit, and others immediately after. Dr. Cullen, who is of the firſt opinion, ſays, "I am ſatisfied that giving a large doſe of the bark immediately before the time of acceſſion, is the moſt proper practice: but as that doſe muſt not be under two drams of pale bark, ſo there are ſome ſtomachs which will not bear even that quantity, or a larger that might be neceſſary. It is commonly, therefore, convenient to give ſmall doſes, but to give them every hour for ſome hours near to the times of acceſſion."[a] Some again order it in the quantity of an ounce between the fits; the doſe being more frequent and larger, according to the frequency of the fits; and this mode of procedure, although it may perhaps lead to the employment of more bark than is neceſſary, is conſidered by Dr. Duncan[b] as upon the whole preferable, from being beſt ſuited to moſt ſtomachs. When the bark pukes, or purges, or oppreſſes the ſtomach, it is to be counteracted by remedies particularly appropriated to them. Thus, vomiting, is often reſtrained by exhibiting it in wine; looſeneſs, by combining it with opium; and oppreſſion at the ſtomach, by the addition of an aromatic. But unleſs for obviating particular occurrences, it is more ſucceſsful when exhibited in its ſimple ſtate than with any addition.

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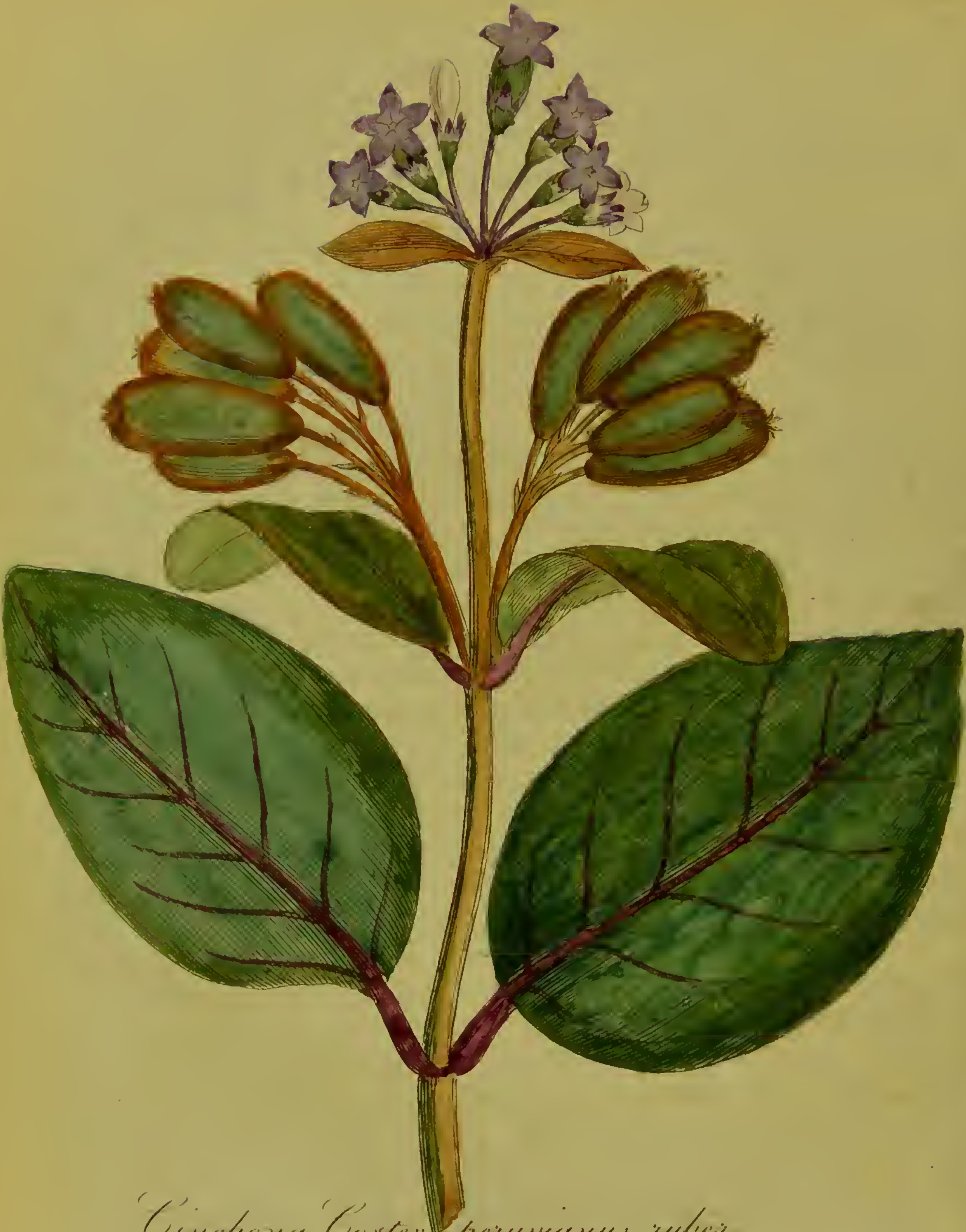
[a] *Mat. Med. Vol. p.* 97. [b] See *New Edinburgh Diſpenſatory.*

It may be given from the very commencement of the diſeaſe without any previous evacuations, though it commonly anſwers better after emptying the alimentary canal, particularly the ſtomach; and it is to be continued not only till the paroxyſms ceaſe, but till the natural appetite, ſtrength, and complection return.

In remittent fevers, eſpecially during the times of remiſſion, the bark may alſo be employed with great ſucceſs; for as both theſe and intermittents ariſe from the ſame cauſe, prevail at the ſame ſeaſons, and aſſume mutually the form of each other, they ſhow a ſtrict affinity, and found a preſumption which is confirmed by experience, that they may be cured by the ſame remedy. In continued fevers, or typhus of the nervous and putrid kind, the bark is very generally uſed, as well ſuited to counteract the debility or putreſcency which marks the progreſs of the diſorder. There is, however, one ſtate not unfrequently preſent in theſe epidemic fevers, in which the bark is found to be hurtful; i. e. ſymptoms of congeſtion, or topical inflammation of the head, manifeſted by headach, redneſs of the eyes, and phrenitic delirium. And whenever delirium is accompanied with much ſubſultus tendinum, or frequent convulſive twitchings of the limbs, Dr. Cullen thinks opium in large doſes is the only remedy to which we can truſt.

Of late the bark has been much employed in acute rheumatiſm, particularly after the violence of the diſeaſe has been in ſome meaſure moderated by the antiphlogiſtic treatment, or when evident remiſſions take place. Many, however, have recourſe to this medicine in the firſt ſtage of the diſeaſe, and we have witneſſed its ſucceſs in ſome of the London Hoſpitals, even while the inflammatory ſymptoms prevailed to a very conſiderable degree. This ſeems contrary to the experience of Dr. Cullen, who ſays, " As I conſider this



Cinchona Cortex peruvianus ruber

Publiſhed by Dr. Woodville May 1. 1793

diſeaſe as eſpecially conſiſting in a phlogiſtic diatheſis, I hold the bark to be abſolutely improper, and have found it manifeſtly hurtful, eſpecially in its beginning, and in its truly inflammatory ſtate."

In the confluent ſmall-pox the bark has been recommended to promote the riſing of the puſtules; this opinion our own experience teaches us to reject; but after the maturition of the puſtules is completed, or where ſymptoms of putreſcency, or a diſſolved ſtate of the blood ſupervenes, the bark cannot be too liberally employed. The other diſeaſes in which the bark is recommended, are gangrenous ſore throats, and indeed every ſpecies of gangrene; ſcarletina, dyſentery, all hemorrhages of the paſſive kind; likewiſe other increaſed diſcharges; ſome caſes of dropſy, eſpecially when unattended with any particular local affection, ſcrophula, ill conditioned ulcers, rickets, ſcurvy, ſtates of convaleſcence, certain ſtages of phthiſis pulmonalis, &c.

The officinal preparations of the bark are the powder, the extract, the tincture, and the decoction. This laſt, though frequently employed, is in many reſpects inferior even to a ſimple watery infuſion; but the beſt form is that of powder, in which the conſtituent parts are in the moſt effectual proportion.

CINCHONA.—CORTEX PERUVIANUS RUBER. RED PERUVIAN BARK TREE.

Cortex Peruvianus ruber officinarum.

THOUGH the ſpecific character of this ſpecies has not yet been botanically determined, yet upon the teſtimony of Combe and Groſchke[a] a drawing of it was ſent to Linnæus from Peru, which was found in the Linnean Herbarium purchaſed by Dr. Smith, to whom we are obliged for the annexed figure. In the original drawing two ſpecimens of the branches are given, one in its floral and the other in its capſular ſtate; to which is alſo added, a ſketch of the bark. On theſe authorities, and on that of Murray, who, in his ſixth vol. of the *App. Medicam.*[d] refers to this figure, we conſider ourſelves ſufficiently warranted to preſent it to the publick, not doubting of its being peculiarly acceptable to our medical readers.

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[a] See *Blumenbach Med. Biblioth. V.* 2. *p.* 486.

It has evidently the eſſential characters of the Cinchona, while it differs ſpecifically from all the others which we have ſeen of this genus. From that of the C. officinalis, the diſparity is ſo obvious, that on comparing the two figures, it does not require to be pointed out.

The medicinal qualities of the bark have been conſidered already with that of the preceding.

[d] See p. 45.

ALOE PERFOLIATA SOCOTORINA. SOCOTORINE ALOE.

SYNONYMA. Aloë ſocotorina. *Pharm. Lond. & Edinb.* Aloe Americana ananæ floribuſque ſuave rubentibus. *Pluk. Almag. t.* 240. *f.* 4. Aloe (vera) foliis longiſſimis et anguſtiſſimis, marginibus ſpinoſis, floribus ſpicatis. *Mill. Dict.*

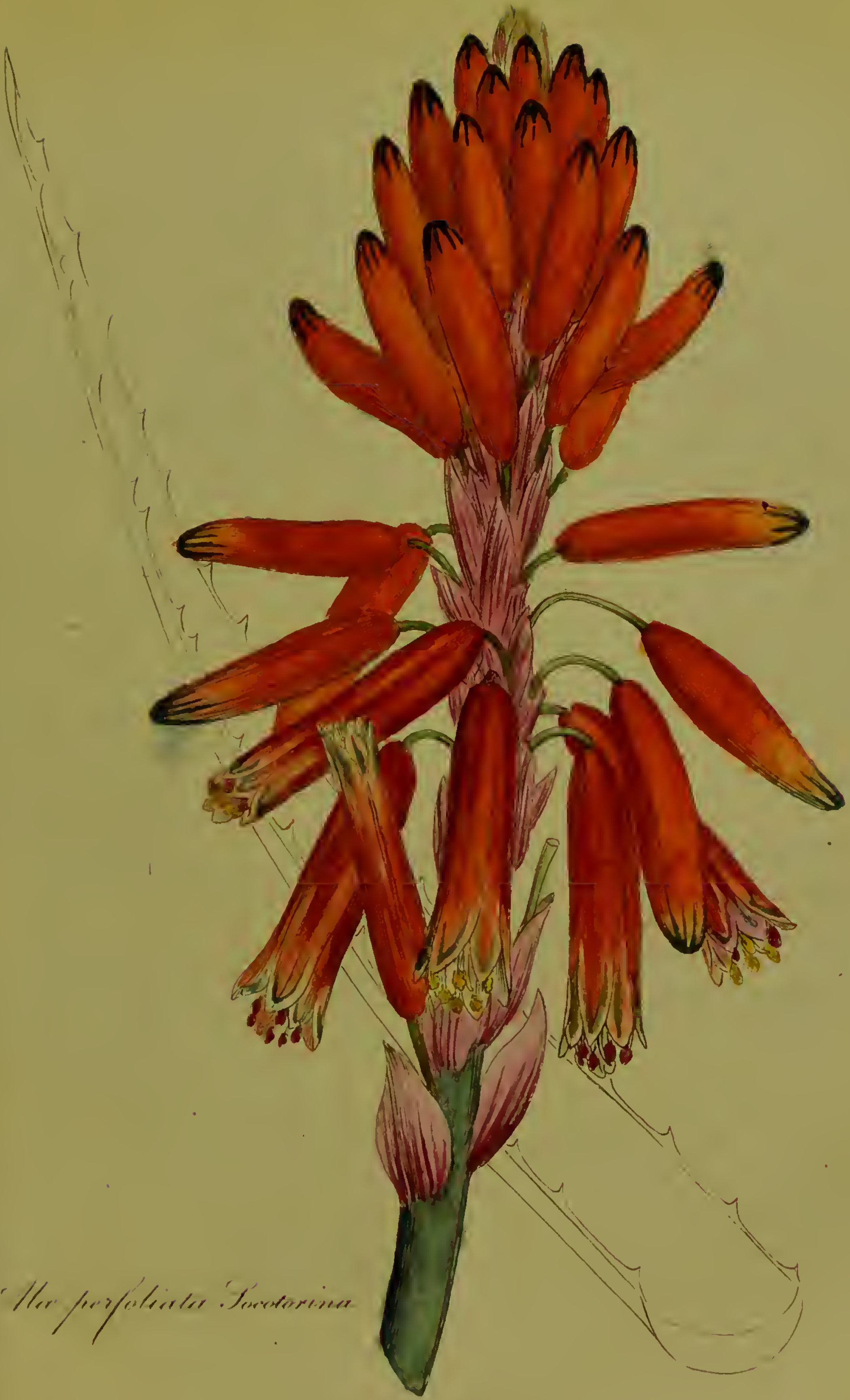
Claſs Hexandria. *Ord.* Monogynia. *Lin. Gen. Plant.* 430.

Eſſ. Gen. Ch. *Cor.* erecta, ore patulo, fundo nectarifero. *Filam.* receptaculo inſerta.

Sp. Ch. A. foliis caulinis dentatis amplexicaulibus vaginantibus, floribus corymboſis cernuis pedunculatis ſubcylindricis.

ȝ *A. S.* foliis longiſſimis et anguſtiſſimis, marginibus ſpinoſis, floribus ſpicatis.

THE root is perennial, ſtrong, fibrous: the flower-ſtems riſe three or four feet in height, and are ſmooth, erect, of a glaucous green colour, and towards the top beſet with ovate bracteal ſcales: the leaves are numerous, and proceed from the upper part of the root: they are narrow, tapering, thick, or fleſhy, ſucculent, ſmooth, glaucous, and beſet at the edges with ſpiny teeth: the flowers are produced



Aloe perfoliata Soccotorina

Publiſhed by Dr Woodville May 1, 1793.

duced in terminal ſpikes, and of a purple or reddiſh colour: there is no calyx: the corolla is monopetalous, tubular, nectariferous, cut into ſix narrow leaves which ſeparate at the mouth: the filaments are ſix, tapering, yellowiſh, inſerted into the receptacle, and furniſhed with oblong orange-coloured antheræ: the germen is oblong, ſupporting a ſimple ſlender ſtyle, of the length of the filaments, and terminated by an obtuſe ſtigma: the capſule is oblong and divided into three cells, with as many valves, and contains many angular ſeeds.

It is a native of Africa, and flowers moſt part of the year.

Not only the ſocotorine aloes, which is the inſpiſſated juice of the plant here repreſented, but alſo the hepatic or Barbadoes aloes is directed for officinal uſe in our pharmacopœias. This however being obtained from another variety of the ſame ſpecies, viz. the aloe (π *vera*) foliis ſpinoſis confertis dentatis vaginantibus planis maculatis L. it has not been thought neceſſary to give a ſeparate figure of it here. Beſides, it appears probable from the obſervations of Profeſſor Murray, that different ſpecies as well as varieties of aloe would furniſh the various kinds of this drug, and that Linnæus by referring theſe ſorts to thoſe plants, the recent juice of which ſeemed to reſpectively correſpond the neareſt to them in taſte, might eaſily be miſled; for Murray upon taſting the freſh juice of many different ſpecies of aloe, ſometimes found it bitter, and at other times totally devoid of bitterneſs.[a]

A tract of mountains about fifty miles from the Cape of Good Hope is wholly covered with the aloes plants, which renders the planting of them there unneceſſary; but in Jamaica and Barbadoes they are now carefully cultivated; to the former of theſe Iſlands, they were firſt brought from Bermuda, and gradually propagated themſelves. They require two or three years ſtanding before they yield their juice in perfection; to procure which, according to Dr. Browne, "The labourers go into the field with tubs and knives, and cut off the largeſt and moſt ſucculent leaves cloſe to the ſtalk; theſe are immediately put into the tubs, and diſpoſed one by the ſide of another in an upright poſition, that all the looſe liquor may dribble out at the wound. When this is thought to be almoſt wholly diſcharged, the leaves are taken out one by one, paſſed through the hand to clear off any part of the juice that may yet adhere, or ſtick in the leſs open veins; and the liquor put in ſhallow flat-bottomed veſſels, and dried gradually in the ſun, until it acquires a proper conſiſtence. What is obtained in this manner is generally called *ſocotorine aloes*, and is the cleareſt and moſt tranſparent, as well as the higheſt in eſteem and value."[b] The method of procuring the common aloes he ſtates to be nearly the ſame with that mentioned by Mr. Hughes,[c] and lately by Mr. Millington:[d] after a ſufficient quantity of juice is drained from the leaves, to make it an object for the boiling houſe, the laſt-mentioned gentleman informs us, "three boilers, either of iron or copper, are placed to one fire, though ſome have but two, and the ſmall planters only one. The boilers are filled with juice, and as it ripens or becomes more inſpiſſated, by a conſtant but regular fire, it is ladled forward from boiler to boiler, and freſh juice is added to that fartheſt from the fire, till the juice in that neareſt to the fire (by much the ſmalleſt of the three, and commonly called by the name of tatch, as in the manufactory of ſugar) becomes of a proper conſiſtency to be ſkipped or ladled out into gourds, or other ſmall veſſels, uſed for its final reception. The proper time to ſkip or ladle it out of the tatch, is, when it is arrived at what is termed a reſin height, or when it cuts freely, or in thin flakes from the edges of a ſmall wooden ſlice, that is dipped from time to time into the tatch for that purpoſe. A little lime-water is uſed by ſome aloe boilers during the proceſs, when the ebullition is too great." He adds, "as to the ſun-dried aloes which is moſt approved for medicinal purpoſes, very little is made in Barbadoes. The proceſs is however very ſimple, though extremely tedious. The raw juice is either put into bladders, left quite open at top, and ſuſpended in the ſun, or in broad ſhallow trays of wood, pewter, or tin, expoſed alſo to the ſun every dry day, until all the fluid parts are exhaled, and a perfect reſin formed, which is then packed up for uſe, or for exportation"[e].

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[a] See *Commentatio de ſucci aloës amari initiis* in *Murr. Opuſc. tom.* 2. *p.* 488. This author found the bittereſt ſpecies to be the following: 1. Aloe elongata, floribus ſpicatis tubuloſo-triquetris ſubringentibus oblique dependentibus, foliis aggregatis dentato-ſpinoſis. It ſeems to be the variety π of the ſpec. plant. and is probably the aloe mentioned by Hughes and Browne. A figure of it is given in the Gottingen Tranſ. for the year 1788.

2. Aloe ſpicata *Thunb.* (ſee *ſupp. plant.*) this is ſaid to afford the beſt hepatic aloes. 3. Aloe linguæformis (ſee *ſyſt. veg. ed.* 14.) This plant in the interior parts of the Cape, is ſelected by ſome as producing the beſt and pureſt aloes. *Thunb. de Med. African. p.* 7. But the greateſt quantity of aloes exported from the Cape of Good Hope, is prepared from another ſpecies, not defined by Thunberg, though not uncommon in our botanic gardens V. *Phyſiogr. Sälſk. Handl. P.* 1. *p.* 112. and Sparrman *Reſa til Goda Hopps-udden. p.* 742, it is probably the *A.* ſpicata *of Thunb.*

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[b] See *Browne's Jamaica*, *p.* 198. [c] See his Hiſtory of Barbadoes, p. 159.
[d] See *London Med. Journal*, *V.* 8. *p.* 422.

Theſe accounts of procuring the aloes differ conſiderably from that given by Dr. Wright, who ſays "Hepatic aloes is obtained in the following manner. The plant is pulled up by the roots and carefully cleanſed from earth or other impurities. It is then ſliced and cut in pieces into ſmall hand-baſkets or nets. Theſe nets or baſkets are put into large iron boilers with water, and boiled for ten minutes, when they are taken out, and freſh parcels ſupplied till the liquor is ſtrong and black. At this period the liquor is thrown through a ſtrainer into a deep vat, narrow at bottom, to cool, and to depoſit its fæculent parts. Next day the clear liquor is drawn off by a cock, and again committed to the large iron veſſel. At firſt it is boiled briſkly, but towards the end the evaporation is ſlow, and requires conſtantly ſtirring to prevent burning. When it becomes of the conſiſtence of honey, it is poured into gourds or calabaſhes for ſale. The ſocotorine aloes may be prepared as above."[f]

The aloe ſocotorina or ſocotorine aloes is ſo named, from being formerly[g] brought from the Iſland Socotria or Zocotria at the mouth of the Red ſea: it comes wrapt in ſkins and is of a bright ſurface, and in ſome degree pellucid; in the lump of a yellowiſh red colour with a purpliſh caſt; when reduced into powder of a golden colour. It is hard and friable in the winter, ſomewhat pliable in the ſummer, and ſoftens between the fingers. Its bitter taſte is accompanied with an aromatic flavour, but not ſufficient to prevent its being diſagreeable:

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[e] Millington, l. c.

[f] V. Dr. Wright's *account of the Medicinal plants growing in Jamaica, in Lond. Med. Jour. Vol.* 8. *p.* 219.

[g] It is now ſaid to be imported from the Cape by the Dutch Eaſt India Company.

the ſmell is not very unpleaſant, and ſomewhat reſembles that of myrrh. The aloe hepatica E. P. and barbadenſis L. P. the Hepatic, Barbadoes, or common aloes, is chiefly brought from Barbadoes; the beſt ſort in large gourd ſhells, an inferior kind in pots, and a ſtill worſe in caſks; is darker coloured than the foregoing, and not ſo clear or bright. It is generally drier and more compact, though ſometimes, eſpecially the caſk ſort, quite ſoft and clammy. Its ſmell is much ſtronger and more diſagreeable: the taſte intenſely bitter and nauſeous, with little or nothing of the aromatic flavour of the ſocotorine.

Another kind of aloes obtained from the aloe guineenſis caballina vulgari ſimilis ſed tota maculata*, is alſo kept in the ſhops, and called aloe caballina, or horſe aloes. This is eaſily diſtinguiſhed from both the foregoing, by its ſtrong rank ſmell: in other reſpects it agrees pretty much with the hepatic, and is now not unfrequently ſold in its place. Sometimes it is prepared ſo pure and bright as ſcarcely to be diſtinguiſhable by the eye, even from the ſocotorine, but its offenſive ſmell readily betrays it; and if this alſo ſhould be diſſipated by art, its wanting the aromatic flavour of the finer aloes will be a ſufficient criterion. This aloe is not admitted into the Materia Medica, and is employed chiefly by farriers.

All the kinds of aloes conſiſt of a reſin united to a gummy matter, and diſſolve in pure ſpirit, proof ſpirit, and proof ſpirit diluted with half its weight of water; the impurities only being left. They diſſolve alſo by the aſſiſtance of heat in water alone; but as the liquor grows cold, the reſinous parts ſubſide.

The hepatic aloes is found to contain more reſin and leſs gum than the ſocotorine, and this than the caballine. The reſins of all the ſorts, purified by ſpirit of wine, have little ſmell: that obtained from the ſocotorine has ſcarce any perceptible taſte; that of the hepatic, a ſlight bitteriſh reliſh; and the reſin of the caballine, a little more of the aloetic flavour. The gummy extracts of all the ſorts are leſs diſagreeable than the crude aloes: the extract of ſocotorine aloes has very little ſmell, and is in taſte not unpleaſant: that of the hepatic has a ſomewhat ſtronger ſmell, but is rather more agreeable in taſte than the extract of the ſocotorine: the gum of the caballine retains a conſiderable ſhare of the peculiar rank ſmell of this ſort of aloes, but its taſte is not much more unpleaſant than that of the extracts made from the two other ſorts.[h]

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* *Commel. Prael. bot. p.* 4.

Aloes is neither noticed by Hippocrates nor Theophraſtus, but Dioſcorides mentions two kinds; and Avicenna tells us, that of the different kinds the ſocotorine is the beſt. Celſus, however, who frequently employed aloes, does not mention any peculiar ſort.

Aloes is a well known purgative; a property which it poſſeſſes not only when taken internally, but alſo by external application.[i] This cathartic quality of aloes does not, like moſt of the others of this claſs, reſide in the reſinous part of the drug but in the gum, for the pure reſin has little or no purgative power. Boerhaave declares aloes to be an effectual and ſafe cathartic, but though we may have little to fear from its hypercathartic effects, yet in large doſes it often produces much heat and irritation, particularly about the rectum, from which it ſometimes occaſions a bloody diſcharge: therefore, to thoſe who are ſubject to piles, or of an hemorrhagic diatheſis, or even in a ſtate of pregnancy, its exhibition has been productive of conſiderable miſchief: but on the contrary, by thoſe of a phlegmatic conſtitution or ſuffering by uterine obſtructions, and in ſome caſes of dyſpepſy, palſy, gout, and worms, aloes may be employed as a laxative with peculiar advantage. Its purgative effects are not always in proportion to the quantity taken, and as its principal uſe is rather to obviate coſtiveneſs than to operate ſtrongly, this ought to be no objection to its uſe. Reſpecting the choice of the different kinds of aloes, it may be obſerved that the ſocotorine, as already mentioned, contains more gummy matter than the hepatic, and hence is found to purge with more certainty and greater irritation; therefore is moſt proper where a ſtimulus is required, or for promoting the uterine diſcharge: while the hepatic is better calculated for the purpoſe of a common purgative; and alſo by containing more reſin anſwers better for external application conſidered as a vulnerary.

The doſe of aloes is from half a ſcruple to half a dram, but it is ſeldom given alone. Several preparations of it are directed in the pharmacopœias, as pilulæ ex aloe, pilulæ ex aloe cum myrrha, extractum colocynthidum compoſitum. *Pharm. Lond.* pilulæ aloeticæ, pilulæ communes, v. Rufi, pilulæ ex colocynthide cum aloe, pilulæ ſtomachicæ, *Pharm. Ed.* tinctura aloes, tinctura aloes compoſita, vinum aloes *P. L.* elixir aloes v. proprietatis, elixir aloes ſive proprietatis vitriolicum, vinum aloeticum. *P. E.* the pulvis aloeticus or hiera picra, and other powders.

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[h] See *Edinburgh new Diſpenſatory.*

[i] V. *Monro's Works*, *p.* 306. *and Mem. de la Soc. R. de Medec. à Paris*, *Vol.* 2. *p.* 162.

IPECACUANHA. IPECACUAN.

Ipecacuanha. *Pharm. Lond. & Edinb.*

AFTER the great diligence of naturaliſts in exploring every quarter of the world, to extend the ſcience of botany, it ſeems ſurpriſing that the plant Ipecacuanha, the roots of which have been in common uſe more than a century, ſhould not have yet been botanically aſcertained. It has been referred to ſeveral different genera, as that of paris, euphorbia, lonicera, viola, pſychotria, &c.; and though this laſt has lately been thought to be the genus to which it belongs, and conſequently named P. emetica by the younger Linnæus; yet the authority on which Mutis received the information, we cannot implicitly follow; and the figure before us, though evidently the true Ipecacuanha plant, not being advanced to a ſtate of inflorefcence, leaves this matter ſtill undetermined. For the plant here repreſented, we are obliged to Sir Joſeph Banks; to whom it was ſent (preſerved in ſpirits) from Brazil by Governor Phillips; and though it is not in a ſtate of perfection, we truſt it will, as a curioſity, be thought a valuable addition to our plates.

Piſo divides this root into two ſorts, the white and the brown, or according to Geoffroy, the Peruvian and Brazilian Ipecacuanha[a]; but three ſorts are evidently diſtinguiſhable in our ſhops, viz. aſh-

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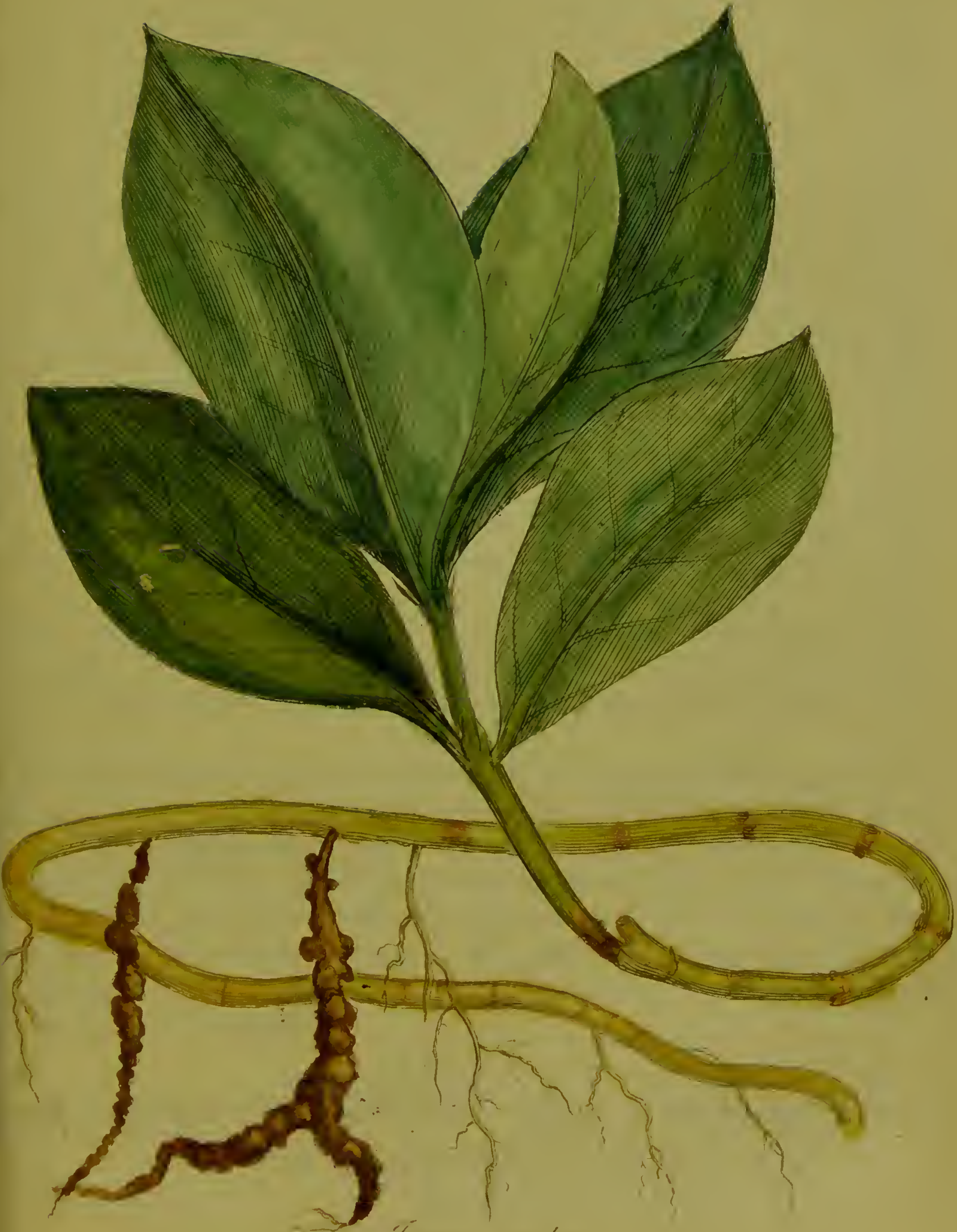
[a] *Piſon. Ind. res. Med. et Nat. p.* 231.

coloured



Ipecacuanha

Publiſhed by Dr. Woodville May 1 17[illegible]

coloured or grey, brown, and white. The aſh-coloured is brought from Peru, and "is a ſmall wrinkled root, bent and contorted into a great variety of figures, brought over in ſhort pieces full of wrinkles and deep circular fiſſures, down to a ſmall white woody fibre that runs in the middle of each piece: the cortical part is compact, brittle, looks ſmooth and reſinous upon breaking: it has very little ſmell; the taſte is bitteriſh and ſubacrid, covering the tongue as it were with a kind of mucilage. The brown is ſmall, ſomewhat more wrinkled than the foregoing; of a brown or blackiſh colour without, and white within; this is brought from Brazil (and correſponds with our ſpecimen). The white ſort is woody, has no wrinkles, and no perceptible bitterneſs in taſte. The firſt, the aſh-coloured or grey Ipecacuan, is that uſually preferred for medicinal uſe. The brown has been ſometimes obſerved, even in a ſmall doſe, to produce violent effects. The white, though taken in a large one, has ſcarce any effect at all."[b] Dr. Irving has aſcertained by experiments,[c] that this root contains a gummy and reſinous matter, and that the gum is in much greater proportion, and is more powerfully emetic than the reſin: that the cortical part is more active than the ligneous, and that the whole root manifeſts an antiſceptic and aſtringent power. He alſo found its emetic quality to be moſt effectually counteracted by means of the acetous acid, inſomuch that thirty grains of the powder taken in two ounces of vinegar, produced only ſome looſe ſtools.

The firſt account we have of Ipecacuan is that publiſhed by Piſo, in 1649; but it did not come into general uſe till thirty years afterwards, when Helvetius,[d] under the patronage of Louis XIV. employed it at the Hotel de Dieu, and introduced this root into common practice; and experience has proved it to be the mildeſt and ſafeſt emetic with which we are acquainted, having this peculiar advantage, that if it does not operate by vomit, it readily paſſes off by the other emunctories.

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[b] *Edin. New Diſpenſ. p.* 211.

[c] See the Diſſertation which obtained the prize medal of the Harveian Society of Edinburgh, for 1784.

[d] See *Recueil des Methodes, p.* 280.

It was firſt introduced to us with the character of an almoſt infallible remedy, in dyſenteries and other inveterate fluxes, as diarrhœa, menorrhagia, and leucorrhœa, and alſo in diſorders proceeding from obſtructions of long ſtanding: nor has it loſt much of its reputation by time. The uſe of Ipecacuan in theſe fluxes, is thought to depend upon its reſtoring perſpiration; for in theſe caſes, eſpecially in dyſentery and diarrhœa, the ſkin is dry and tenſe; and while the common diaphoretics uſually paſs off by ſtool, ſmall doſes of this root have been adminiſtered with the beſt effects, proving both laxative and diaphoretic.[e] In the ſpaſmodic aſthma, Dr. Akenſide[f] remarks, that where nothing contraindicates repeated vomiting, he knows no medicine ſo effectual as Ipecacuan. In violent paroxyſms a ſcruple procures immediate relief. Where the complaint is habitual, from three to five grains every morning, or from five to ten every other morning, may be given for a month or ſix weeks.

This medicine has alſo been ſucceſsfully uſed in hemorrhages.[g] Several caſes of menorrhagia are mentioned by Dahlberg,[h] in which one-third or half a grain was given every four hours till it effected a cure. Theſe ſmall doſes are likewiſe found of great uſe in catarrhal and even conſumptive caſes, as well as in various ſtates of fever. Dr. Cullen informs us,[i] that he knew a practitioner who cured intermittents by giving five grains of Ipecacuanha, or enough to excite nauſea, an hour before the acceſſion of the fit was expected; and that "Dr. Thompſon, formerly of Montroſe, propoſed to cure agues by the employment of emetics given at the time of acceſſion, or at the end of the cold ſtage: and this practice has alſo been ſucceſsful, and may indeed be executed by tartar emetic; but in trying ſuch practices, I have found the Ipecacuanha more manageable than the other, and generally to be more eaſy to the patient."

Ipecacuan, particularly in the ſtate of powder, is now advantageouſly employed in almoſt every diſeaſe in which vomiting is

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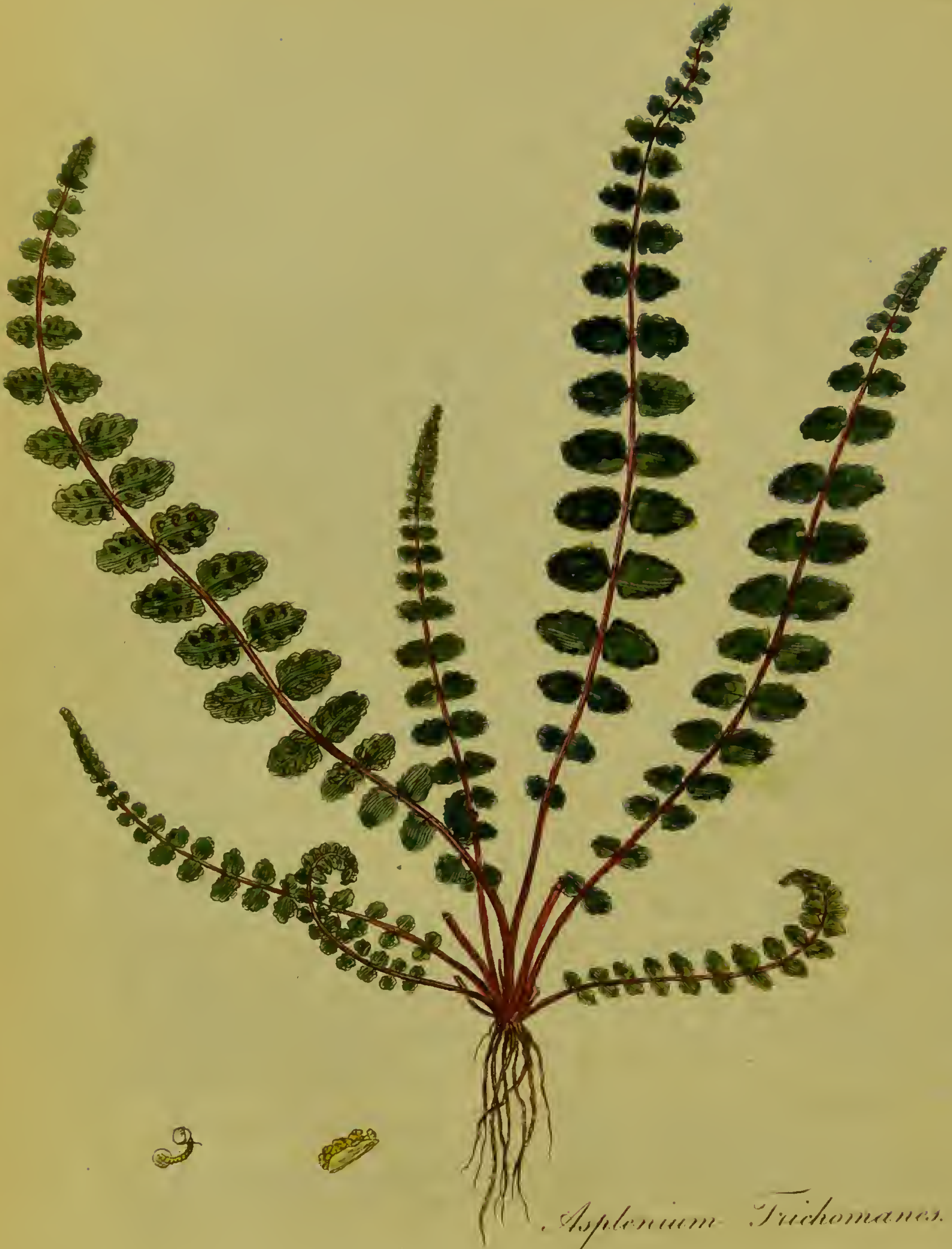
[e] Dr. Cullen attributes its good effects entirely to its purgative quality, *M. M. Vol.* 2. *p.* 477. [f] *Med. Tranſ. vol.* 1. *p.* 96.

[g] See Gianella de admirabili Ipec. virtute in curandis febribus. Patav. 1754. Alſo Bergius (M. M. p. 103.) and others. [h] *Vet. Acad. Handl. vol.* 31. *p.* 316. *a* 1770.

[i] l. c.

indicated;



Asplenium Trichomanes.

Published by Dr. Woodville May 1. 1793.

indicated; and when combined with opium, under the form of pulvis ſudorificus, it furniſhes us with the moſt uſeful and active ſweating medicine which we poſſeſs. It is alſo given with advantage in very ſmall doſes even when it produces no ſenſible operation. The full doſe of Ipecacuan in ſubſtance is a ſcruple, though leſs doſes will frequently produce an equal effect. The officinal preparation is vinum ipecacuanhæ.

ASPLENIUM TRICHOMANES. COMMON MAIDENHAIR, Or SPLEEN-WORT.

SYNONYMA. Trichomanes. *Pharm. Edinb. Park. Theat. p.* 1051. *Raii Hiſt. p.* 140. *Synop. p.* 119. *Hall. Hiſt. Stirp. Helv. p.* 1693. Trichomanes Maſ. *Ger. Emac. p.* 1146. Trichomanes ſive Polytrichum officinarum, *Bauh. Pin. p.* 356. Aſpl. Trichomanes. *Hudſon. Flor. Ang. p.* 452. *Withering. Botan. Arr. Vol.* 3. *p.* 52. *Relhan. Flor. Cant. p.* 388. *Ic. Flor. Dan. p.* 119. *Bolton. Fil. Brit. p.* 22. *t.* 13.

Claſs Cryptogamia. *Ord.* Filices. *Lin. Gen. Plant.* 1178.

Eſſ. Gen. Ch. Fructificationes in lineolis diſci frondis ſparſis.

Sp. Ch. A. frondibus pinnatis: pinnis ſubrotundis crenatis.

THE root is perennial, conſiſting of numerous ſlender fibres, of a dark brown colour: the general leaves are numerous, pinnated, ſix or eight inches in length; the ribs of which are ſmooth, and of a ſhining blackiſh colour; the pinnæ are ſeſſile, ſomewhat roundiſh, indented at the edges, placed oppoſitely, and conſiſting of about twenty pairs, of which the largeſt ſtands in the middle of the leaf; the others gradually decreaſe towards each extremity, eſpecially the upper;

upper: the fructifications, or ſeed veſſels, are placed on the back of the pinnæ or lobes of the leaf, and form a row of three or four on each ſide of the midrib: at firſt they are yellowiſh, and are covered with a thin membrane, which when at maturity burſts, and diſcharges the contents over the other leaves.

It is common in this country, and is uſually found on old walls and rocks in moiſt and ſhaded ſituations.

This plant we figure on the authority of the Edinburgh Pharmacopœia.

The leaves have a mucilaginous ſweetiſh ſubaſtringent taſte, without any particular flavour; they are eſteemed uſeful in diſorders of the breaſt, proceeding from a thickneſs and acrimony of the juices; and are likewiſe ſuppoſed to promote the expectoration of tough phlegm, and to open obſtructions of the viſcera. They are uſually directed in effuſion or decoction, with the addition of a little liquorice. A ſyrup prepared from them, though it has now no place in our pharmacopœias, is frequently to be met with in our ſhops, both as prepared at home and imported from abroad. A little of theſe ſyrups mixed with water makes a very pleaſant draught. The ſyrup brought from abroad has an admixture of orange flower-water.[a]

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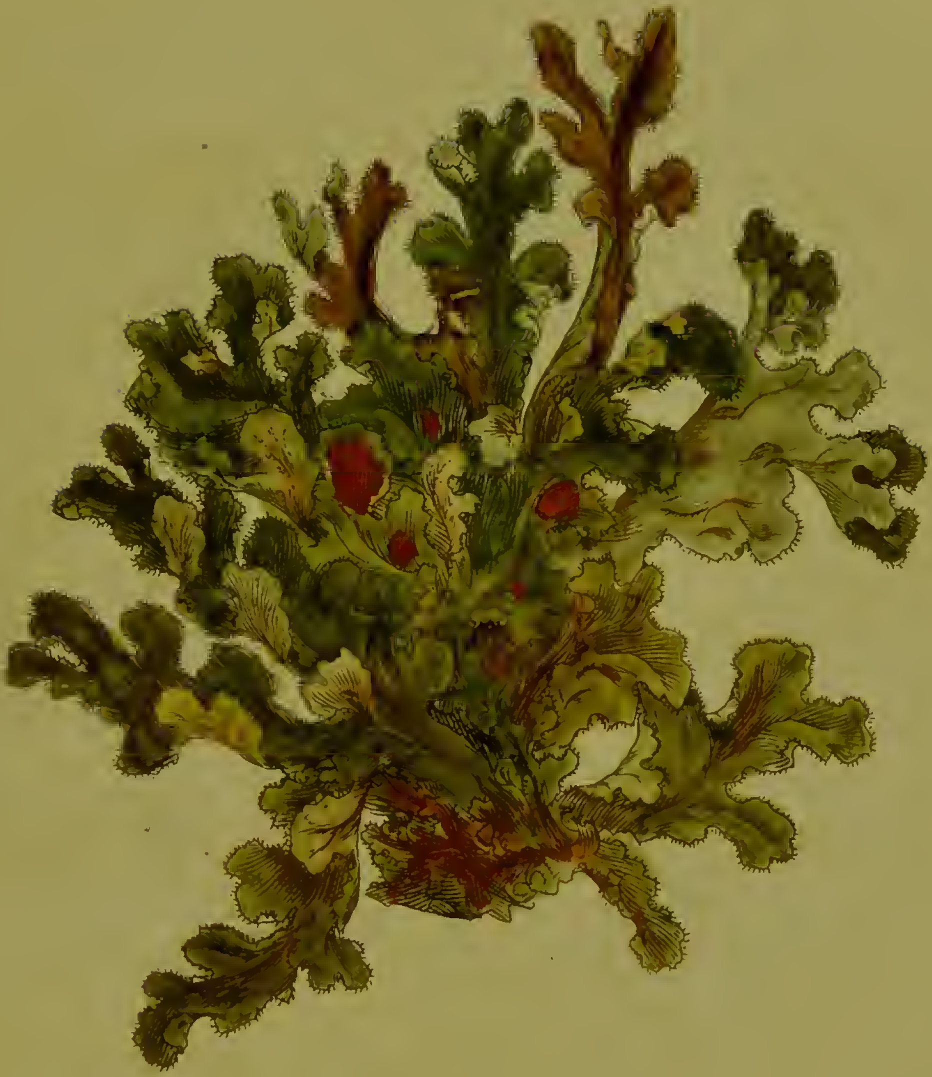
[a] *Ed. N. Diſpenſ. p.* 209.

LICHEN ISLANDICUS. ERYNGO-LEAVED LICHEN.

SYNONYMA. Lichen iſlandicus. *Pharm. Edinb.* Lichen foliis oblongis laciniatis: marginibus conniventibus ciliatis. *Flor. Lapp. p.* 445. *Roy. Lugdb. p.* 508. *Hall. Stirp. Helv.* 75. Lichen terreſtris, foliis eryngii. *Buxb. cent.* 2. *p.* 11. *t.* 6. *f.* 1. 2. Lichenoides rigidum, eryngii folia referens. *Dill. Hiſt. Muſc. p.* 209. *t.* 28. *f.* 111. Lichenoides iſlandicum. *Hoffm. Pl. Lichenoſ. vol.* 1. *faſc.* 2. *tab.* 9. *f.* 1. *p.* 41. *Flor. Dan.* 155. *Giſcke* 50. *Mich. t.* 44. *f.* 4. Conf. *Withering. Bot. Arr. p.* 196.



Lichen islandicus

Publiſhed by Dr Woodville May 1.1793.

Claſs Cryptogamia. *Ord.* Algæ. *Lin. Gen. Plant.* 1202.

Eſſ. Gen. Ch. *Masc.* *Receptaculum* ſubrotundum, planiuſculum, nitidum.

Fem. Farina foliis adſperſa.

D. Foliacei.

Sp. Ch. L. foliaceus adſcendens laciniatus: marginibus elevatis ciliatis.

THIS Lichen is foliaceous, erect, large: the leaves are crowded, connected together, tough, membranous, two or three inches long, variouſly ſinuated, or divided into irregular blunt lobes, turned in at the edges, and fringed with ſhort ſtrong briſtles: the ſurface is ſmooth, ſhining, channelled, and of a pale green or brown colour: the fructifications or ſcutella are large, of a reddiſh brown colour, and placed on the lobes of the leaves. It is a native of Britain, particularly on the mountains of Wales and Scotland.

The medicinal qualities of the Lichen Iſlandicus have lately been ſo well eſtabliſhed at Vienna, that this plant is now admitted into the Materia Medica of the Edinburgh Pharmacopœia. It is extremely mucilaginous, and to the taſte is bitter and ſomewhat aſtringent: its bitterneſs, as well as the purgative quality which it manifeſts in its recent ſtate, are in a great meaſure diſſipated on drying, or may be extracted by a ſlight infuſion in water, ſo that the inhabitants of Iceland convert it into a tolerably grateful and nutritive food. An ounce of this Lichen, boiled a quarter of an hour in a pint of water, yeilded ſeven ounces of a mucilage as thick as that procured by the ſolution of one part of gum arabic in three of water.

The medical virtues of this Lichen were probably firſt learned from the Icelanders, who employ it in its freſh ſtate as a laxative,[a] but when deprived of this quality, and properly prepared, we are told that it is an efficacious remedy in conſumptions, coughs, dyſenteries, and diarrhæas. Scopoli ſeems to have been the firſt who of late years called the attention of phyſicians to this remedy in conſumptive diſorders;[b] and further inſtances of its ſucceſs are related by Herz,[c] Cramer,[d] Tromſdorff,[e] Ebeling,[f] Paulizky,[g] Stoll,[h] and others, who bear teſtimony of its efficacy in moſt of the other complaints above mentioned. Dr. Herz ſays, that ſince he firſt uſed the Lichen in dyſentery, he found it ſo ſucceſsful that he never had occaſion to employ any other remedy; it muſt be obſerved, however, that cathartics and emetics were always repeatedly adminiſtered before he had recourſe to the Lichen, to which he alſo occaſionally added opium.

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[a] See Borrichius in Bartholini, *Act. Med. Hafn.* 1671. *p.* 126. Olafsen *Reiſe igiennem Iſland. tom. i. p.* 159.

Dr. Crichton informs us,[i] that during ſeven months reſidence at Vienna he had frequent opportunities of ſeeing the Lichen Iſlandicus tried in phthiſis pulmonalis at the General Hoſpital, and confeſſes, "that it by no means anſwered the expectation he had formed of it." He adds, however, "From what I have ſeen, I am fully convinced in my own mind, that there are only two ſpecies of this diſeaſe where this ſort of Lichen promiſes a cure. The two ſpecies I hint at, are the *phthiſis hæmoptoica*, and the *phthiſis pituitoſa*, or *mucoſa*. In ſeveral caſes of theſe I have ſeen the patients ſo far get the better of their complaints as to be diſmiſſed the hoſpital cured; but whether they remained long ſo or not I cannot take upon me to ſay." That this Lichen ſtrengthens the digeſtive powers, and proves extremely nutritious, there can be no doubt; but the great medicinal efficacy attributed to it at Vienna will not readily be credited at London. It is commonly given in the form of a decoction; an ounce and a half of the Lichen being boiled in a quart of milk. Of this a tea-cupful is directed to be drank frequently in the courſe of the day. If milk diſagree with the ſtomach, a ſimple decoction of the Lichen in water is to be uſed. Care ought to be taken that it be boiled over a ſlow fire, and not longer than a quarter of an hour.

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[b] *Ann. hiſt. nat. i.* 1769. *p.* 112. & *Ann. ii. p.* 141.

[c] *Briefe an Aerzte, vol.* 2.

[d] *Diſſ. de Lichene Iſlandico.*

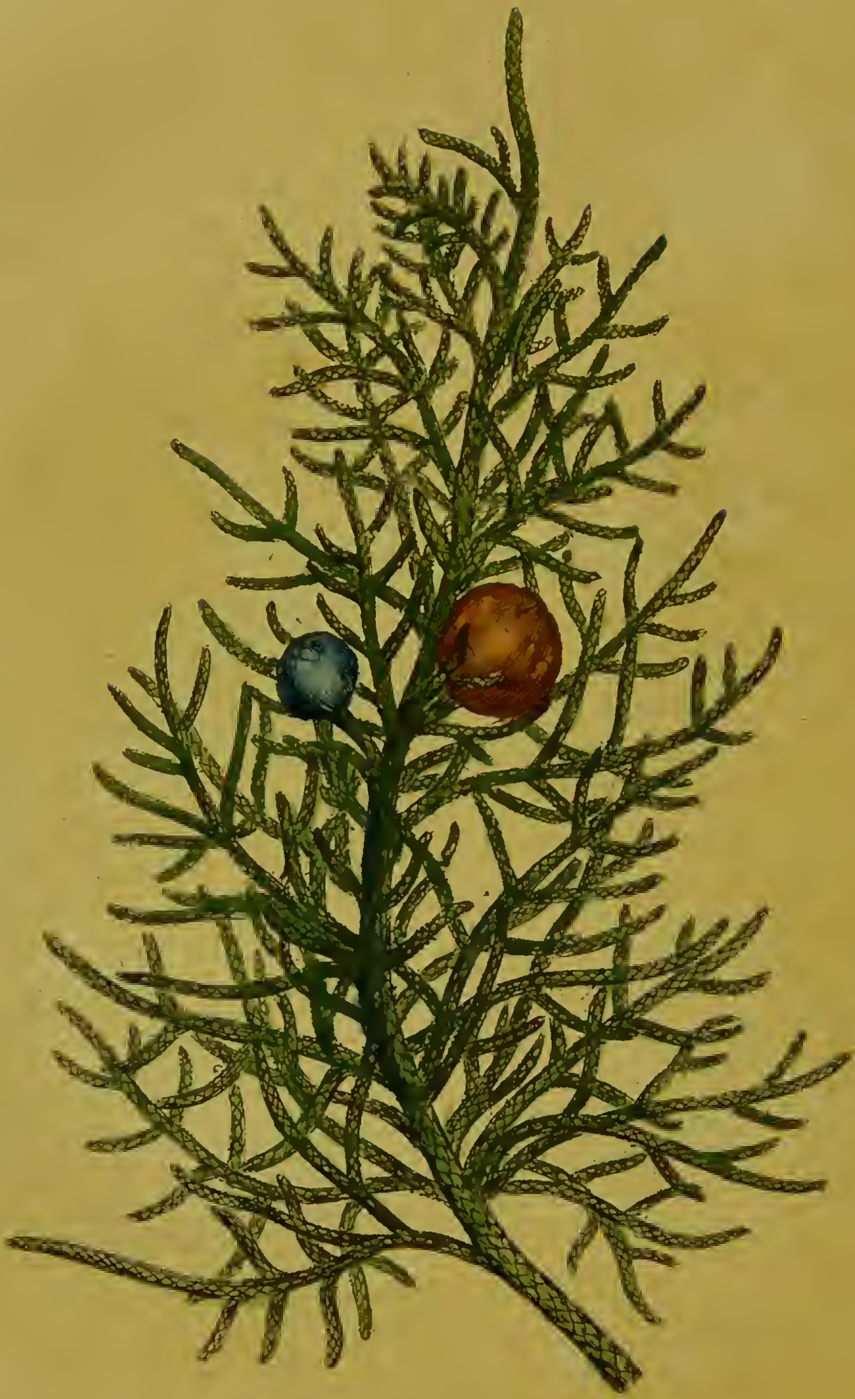
[e] *Diſſ. de Lichene Iſlandico.*

[f] *Diſſ. de Quaſſia et Lichene Iſlandico.*

[g] *Med. Pract. Beob.* 2. *Samml.* 104.

[h] *Rat. Med. P.* 2.

[i] See *Medical Journal, vol.* 10. *p.* 233.



Juniperus Lycia

Published by Dr Woodville June 1 1793.

JUNIPERUS LYCIA. LYCIAN JUNIPER, or CEDAR.

Olibanum. *Pharm. Lond. & Edinb.*

SYNONYMA. Cedrus folio cupreſſi major, fruƈtu flaveſcente. *Bauh. Pin. p.* 487. Cedrus phœnicia altera Plinii & Theophraſti. *Lob. Icon.* 221. *Du Hamel, Arbres, T.* 1. *p.* 140.

Claſs Dioecia. *Ord.* Monadelphia. *Lin. Gen. Plant.* 1134.

Eſſ. Gen. Ch. Masc. *Amenti* Calyx ſquamæ. *Cor.* 0. *Stam.* 3.
Fem. *Cal.* 3-partitus. *Petala* 3. *Styli* 3. *Bacca* 3-ſperma, tribus tuberculis calycis inæqualis.

Sp. Ch. J. foliis ternis undique imbricatis ovatis obtuſis.

THIS ſpecies riſes but to an inconſiderable height, ſending off ereƈt branches, covered with brown bark: the leaves are ſmall, round, blunt, variouſly divided, and every where remarkably imbricated with ſmall cloſe ſcales: the flowers are male and female on different plants, and accord with the deſcription which we have already given of the Juniperus Sabina: the berries are large, and when ripe of a dark brown colour.

It is a native of the South of Europe, and very ſcarce in this country; for that ſpecies called Lycia by the gardeners here, has not the ſcaly appearance repreſented in the plate before us, which was drawn from a ſpecimen in the Herbarium of Sir Joſeph Banks.

The officinal gummy reſinous ſubſtance, known by the name of Olibanum, is ſaid to ouze ſpontaneouſly from the bark of this tree, ppearing in drops or tears, of a pale yellowiſh, and ſometimes of a eddiſh colour.* "Olibanum has a moderately ſtrong and not very agreeable ſmell, and a bitteriſh ſomewhat pungent taſte: in chewing it ſticks to the teeth, becomes white, and renders the ſaliva milky. Laid on a red-hot iron, it readily catches flame, and burns with a ſtrong diffuſive and not unpleaſant ſmell. On trituration with water, the greateſt part of it diſſolves into a milky liquor, which on ſtanding depoſits a portion of reſinous matter."[a] The gummy and reſinous parts are nearly in equal proportions; and though rectified ſpirit diſſolves leſs of the Olibanum than water, it extracts nearly all its active matter. It is brought from Turkey, and from the Eaſt Indies; but that which comes from India is leſs eſteemed.

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* This drug has received different appellations, according to its different appearances: e ſingle tears are called ſimply *olibanum*, or *thus:* when two are joined together, *thus ſculum*; and when two are very large, *thus fœmininum:* if ſeveral adhere to the bark *us corticoſum:* the fine powder, which rubs off from the tears, *mica thuris*; and the arſer *manna thuris.*

In ancient times Olibanum ſeems to have been in great repute,[b] and was chiefly uſed in affections of the head and breaſt, coughs, hæmoptyſis, and in various fluxes both uterine and inteſtinal: it was alſo much employed externally. Riverius found it of great efficacy in pleuriſies, which were ſaid to be epidemic; and Geoffroy[c] likewiſe experienced its ſucceſs in theſe diſeaſes, eſpecially after veneſection; at preſent, however, recourſe is ſeldom had to this medicine, which is now ſuperſeded by myrrh, and other articles of the reſinous kind.

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[a] *Lewis, M. M. p.* 460.

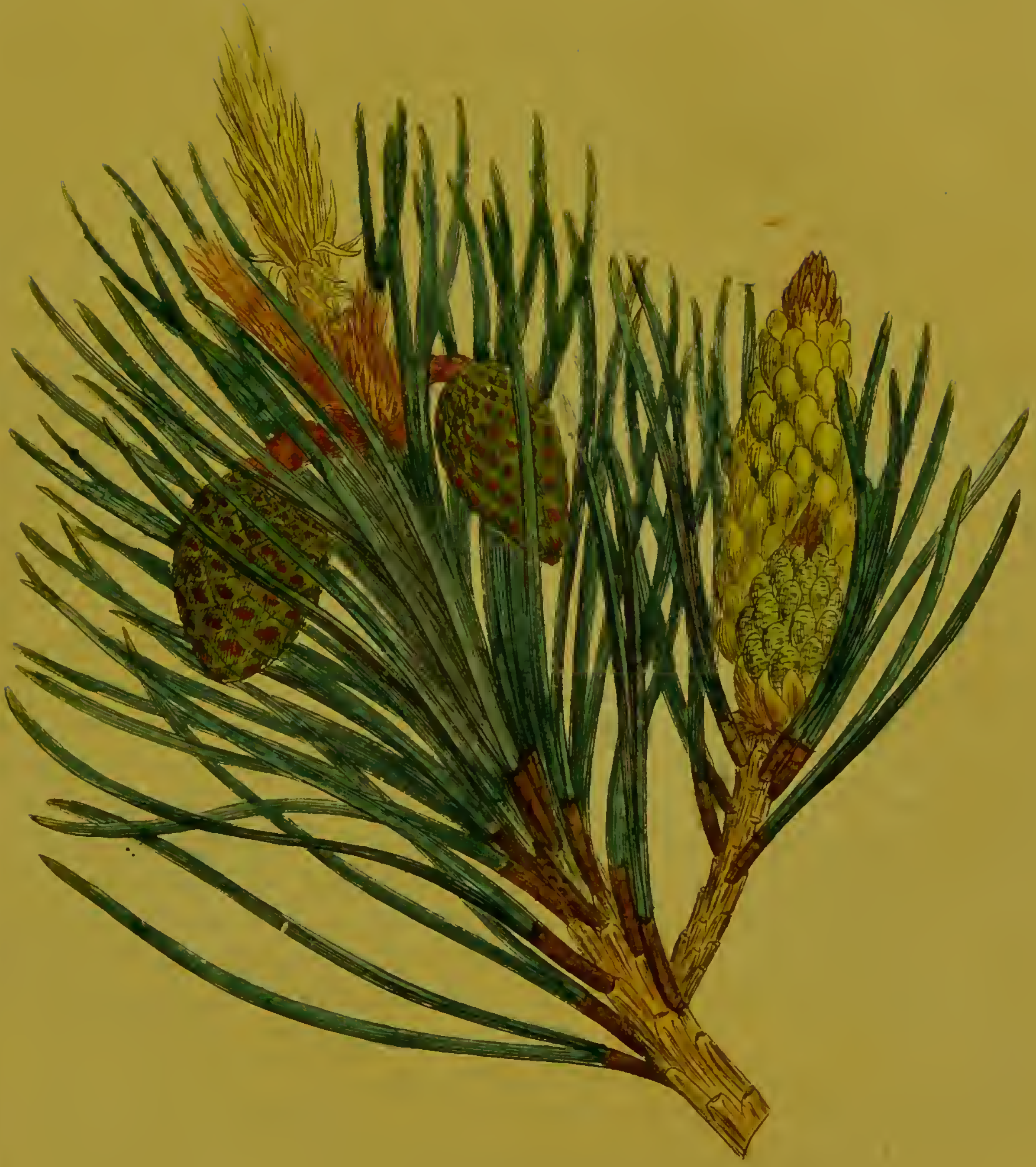
[b] It is the λιβανος of Theophraſtus & Dioſcorides, λιβανωτον of Hippocrates.

[c] *Mat. Med. Traité. T.* 4. *p.* 71.

PINUS SYLVESTRIS. SCOTCH FIR.

Pix liquida. *Pharm. Lond. & Edinb.*

SYNONYMA. Pinus ſylveſtris. *Bauh. Pin. p.* 491. *Gerard. Emac. p.* 1356. *Raii Hiſt. p.* 1399. Pinus rubra foliis geminis brevioribus glaucis, conis parvis mucronatis. *Mill. Dict.* Pinus ſylveſtris foliis brevibus glaucis, conis parvis albicantibus. *Du Hamel. Arb.* 2. *p.* 125. *t.* 30. *Raii Synop. p.* 442. *Hudſon. Flor. Ang. ed.* 1. 361. *Lightfoot, Flor. Scot. p.* 587. *Withering. Bot. Arr. p.* 1092. *Ic. Miller Illuſt. The Scotch Fir Tree. Hunter's Evel.*



Pinus sylvestris

Publish'd by Dr. Woodville June 1 1793

Claſs Monoecia. *Ord.* Monadelphia. *Lin. Gen. Plant.* 1077.

Eſſ. Gen. Ch. *Masc. Cal.* 4-phyllus. *Cor.* 0. *Stam.* plurima.
Antheræ nudæ.
Fem. Cal. ſtrobili: ſquama 2-flora. *Cor.* 0. *Piſt.* 1.
Nux ala membranacea excepta.

Sp. Ch. P. foliis geminis rigidis, conis ovato-conicis longitudine foliorum ſubgeminis baſi rotundatis. *Hort. Kew.*

THIS tree grows uſually ſtraight, tapering, and to a great height, ſo as to be made into good maſts for ſhips: the branches are numerous, divaricating, and like the ſtem covered with rough bark of a reddiſh brown colour: the leaves ſtand in pairs, and are united at the baſe with the ſheath; they are two or three inches long, convex on one ſide, concave on the other, very narrow, linear, ſtriated, ſomewhat pointed, of a deep green glaucous colour, and ſurround the ends of the ſmaller branches: the flowers are male and female upon the ſame tree; the former ſtand in bunches without any calyx, unleſs the looſe ſcales be conſidered as ſuch: there is no corolla: the filaments are numerous, united at the bottom, forming an upright pillar, and furniſhed with erect antheræ: the latter conſiſts of a calyx, or common cone, which is ſmall, compoſed of ſcales, with two flowers in each; the cones are oblong, imbricated, permanent, inflexible: there is no corolla: the germen is very ſmall, producing a tapering ſtyle, terminated by a ſimple ſtigma: there is no capſule, but the ſcales of the cone, which before ſtood open cloſe upon the ſeed or nut, which is ſupplied with a membranaceous wing.

It is a native of Scotland, eſpecially among the highland mountains, and hence named Scotch Fir. It flouriſhes beſt in a poor ſandy ſoil. In black, boggy or chalky ground, or near ſtagnant waters, it does not thrive. The wood is uſed for various purpoſes, and the inner bark is, by the inhabitants of the north of Europe, made into a kind of bread.

Though moſt ſpecies of Fir poſſeſs in common the ſame medicinal properties, and all agree in affording the different products of the turpentine kind, yet as it has been found that ſome ſpecies produce theſe different articles of the Materia Medica in greater purity, or in more abundance than others: we have accordingly aſſigned to each, the reſpective article which it beſt ſupplies. This tree not only furniſhes moſt abundantly the Pix liquida, or Tar, but alſo from it may be obtained the common turpentine, and the white and yellow reſins.

The manner in which the Tar is procured is by cutting the tree into pieces, which are incloſed in a large oven conſtructed for the purpoſe, with a channel at the bottom. A ſufficient degree of heat is then applied, by which the tar is forced out of the wood, and runs off by the opening at the bottom: a proceſs termed diſtillatio per deſcenſum.

Tar, which is well known from its œconomical uſes, is properly an empyreumatic oil of turpentine, and has been much uſed as a medicine both internally and externally. Tar water, * or water impregnated with the more ſolubile parts of tar, was ſometime ago a very popular remedy in various obſtinate diſorders, both acute and chronic; eſpecially in ſmall-pox, ſcurvy, ulcers, fiſtulas, rheumatiſm, aſthma, coughs, cutaneous complaints, &c. and though its medicinal efficacy was greatly exaggerated by the publications of Biſhop Berkeley, Prior, and others, yet Dr. Cullen acknowledges that he experienced this preparation in ſeveral caſes to be a valuable medicine, and that it "appeared to ſtrengthen the tone of the ſtomach, to excite appetite, promote digeſtion, and to cure all ſymptoms of dyſpepſia. At the ſame time it manifeſtly promotes the excretions, particularly that of urine; and the ſame may be preſumed to happen in that of others. From all theſe operations it will be obvious, that in many diſorders of the ſyſtem this medicine may be highly uſeful." [a]

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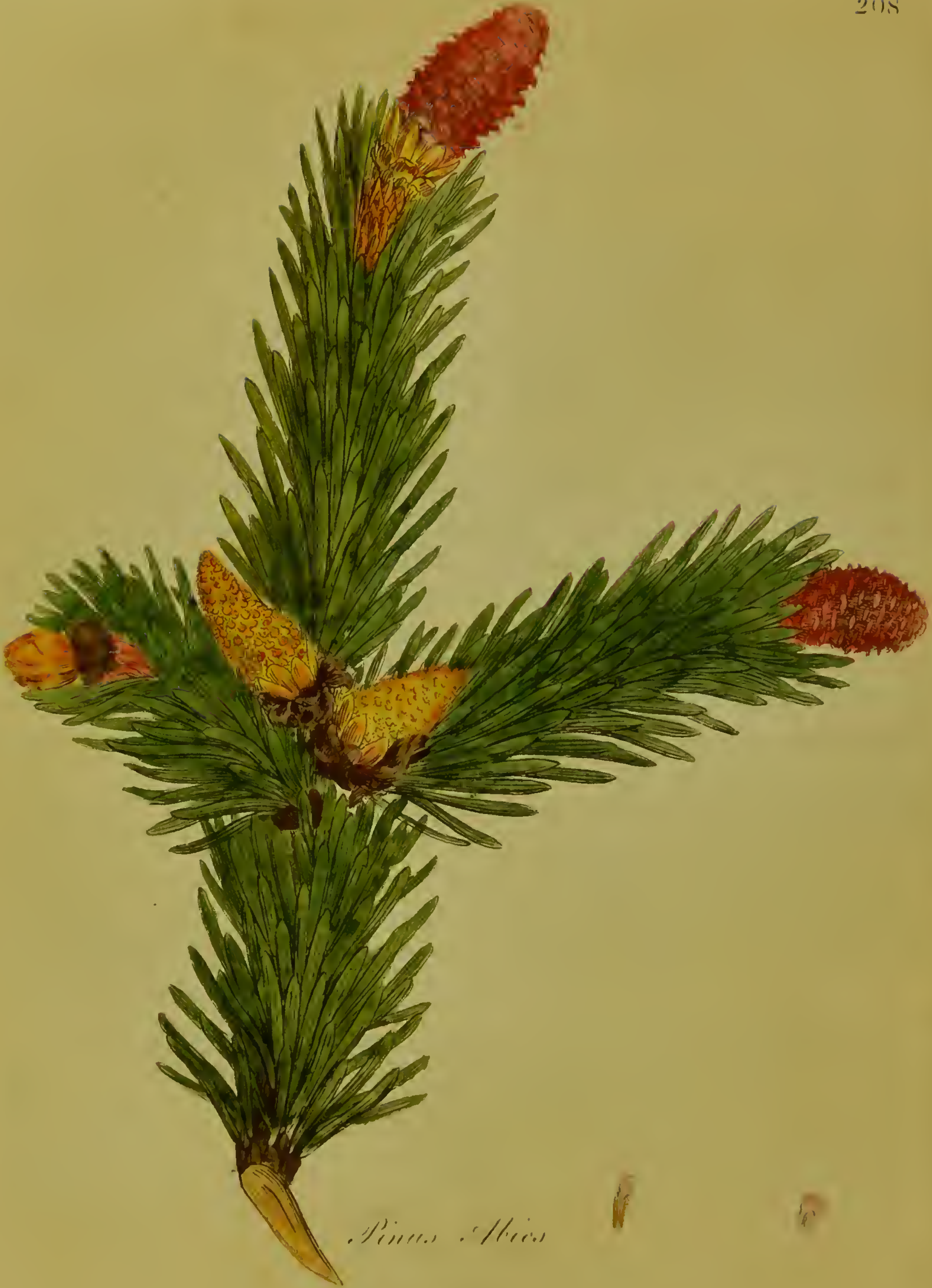
* The proportions that have been commonly employed, are two pounds of tar to a gallon of water; which are to be well ſtirred together, then ſuffered to ſettle for two days, and the clear liquor poured off for uſe. From a pint to a quart, according to circumſtances, may be taken in the courſe of twenty-four hours. Dr. Cullen thinks with Mr. Reid, that the acid principle gives the virtue to tar water; and hence the Biſhop of Cloyne properly preferred the Norway tar to that of New England, as the former contains more acid than the latter.

[a] *Mat. Med. vol. ii. p.* 334.



Pinus Abies

Publish'd by Dr Woodville June 1. 1793

An ointment of tar is directed in both Pharmacopœias, which has been chiefly employed in cutaneous diſorders. Dr. Cullen ſays, "I have met with an emperical practice with reſpect to tar of a ſingular kind. A leg of mutton is laid to roaſt; and whilſt it continues roaſting, it is baſted with tar inſtead of butter. Whilſt the roaſting goes on, a ſharp ſkewer is frequently thruſt into the ſubſtance of the mutton, to give occaſion to the running out of the gravy; and with the mixture of the tar and gravy to be found in the dripping-pan, the body is to be anointed all over for three or four nights ſucceſſively; whilſt for the ſame time the ſame body-linen is to be worn. This is alleged to be a remedy in ſeveral caſes of lepra; and I have had one inſtance of its being employed in a lepra icthyoſis with great ſucceſs: but for reaſons readily to be apprehended, I have not had opportunities of repeating the practice."[b]

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[b] *L. c.*

PINUS ABIES. NORWAY SPRUCE FIR TREE.

Pix burgundica. *Pharm. Lond. & Edinb.*

SYNONYMA. Picea major prima, ſive Abies rubra. *Bauh. Pin.* 493. Picea major. *Ger. Emac. p.* 1354. *Park. Theat. p.* 1538. Abies mas Theophraſti. *Raii Hiſt. p.* 1396. *Synop. p.* 441. P. Abies. *Hudſon. Flor. Ang. ed.* 1. *p.* 361. Abies tenuiore folio, fructu deorſum inflexo. *Du Hamel Arb.* 1. *p.* 3. *t.* 2. The Spruce Fir Tree. *Hunter's Evelyn.* 178.

Claſs Monoecia. *Ord.* Monadelphia. *Lin. Gen. Plant.* 1077.

Eſſ. Gen. Ch. MASC. *Cal.* 4-phyllus. *Cor.* 0. *Stam.* plurima. *Antheræ* nudæ.

FEM. *Cal.* ſtrobili: ſquama 2-flora. *Cor.* 0. *Piſt.* 1. *Nux* ala membranacea excepta.

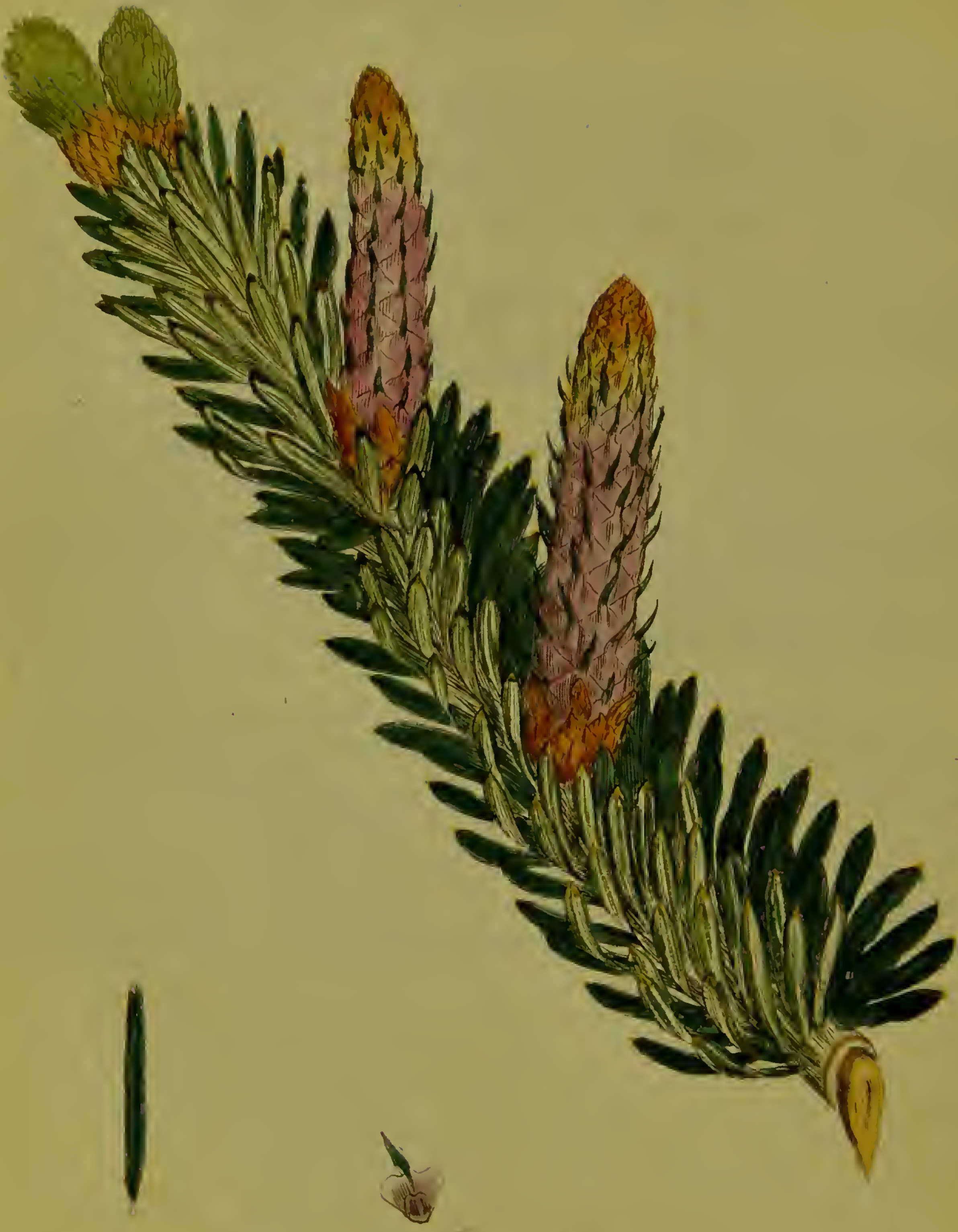
Sp. Ch. P. foliis ſolitariis ſubtetragonis acutiuſculis diſtichis, ramis infra nudis, conis cylindraceis. *Hort. Kew.*

THIS tree ſomewhat reſembles the former in its general appearance: the leaves are ſhort, ſolitary, pointed, ſomewhat quadrangular, and upon the older branches incline in oppoſite directions: the cones are almoſt cylindrical, bent downwards, larger, and of a darker colour than the preceding ſpecies.

Ray and Hudſon mention this tree as a native of Scotland; but we are told in the *Flora Scotica* that the P. ſylveſtris is the only ſpecies of pine that grows wild in that country.

Upon an inciſion being made into the bark of this tree, a clear tenacious fluid iſſues, which concretes into a reſinous ſubſtance, known by the name of *reſina abietis*. This, after being boiled in water, and ſtrained through a linen cloth, is called in the Pharmacopœias *Pix burgundica*, or Burgundy pitch. But if the boiling of the native reſin is continued till the water is wholly evaporated, and wine vinegar is at this time added, a ſubſtance named *Colophonium* is formed.

Burgundy pitch, which is chiefly imported from Saxony, is of a ſolid conſiſtence, yet ſomewhat ſoft, of a reddiſh brown colour, and not diſagreeable in ſmell. It is entirely confined to external uſe, and was formerly an ingredient in ſeveral ointments and plaſters. In inveterate coughs, affections of the lungs, and other internal complaints, plaſters of this reſin, by acting as a topical ſtimulus, are frequently found of conſiderable ſervice.



Pinus Picea

Publish'd by W. Woodville June 1. 1793

PINUS PICEA. SILVER FIR TREE.

Terebinthina communis. *Pharm. Lond. & Edinb.*

SYNONYMA. Abies conis ſurſum ſpectantibus, ſeu mas. *Bauh. Pin. p.* 505. Abies. *Ger. Emac. p.* 1363. *Park. Theat. p.* 1539. Abies Taxi foliis. *Raii Hiſt. p.* 1394. *Synop. p.* 441. Abies foliis ſolitariis emarginatis, conis oblongis erectis, ſquamis ſubrotundis planis baſi acuminatis. *Du Roy. Baumz. T.* 2. *p.* 95. *Hall. n.* 1657. Pinus Picea. *Hudſon. Flor. Ang. p.* 361. Abies taxi folio, fructu ſurſum ſpectante. *Du Hamel. Arb.* 1. *p.* 3. *t.* 1. The Silver Fir Tree. *Hunter's Evelyn. Sylva.* 178.

Claſs Monoecia. *Ord.* Monadelphia. *Lin. Gen. Plant.* 1077.

Eſſ. Gen. Ch. MASC. *Cal.* 4-phyllus. *Cor.* 0. *Stam.* plurima.
Antheræ nudæ.
FEM. *Cal.* Strobili: ſquama 2-flora. *Cor.* 0. *Piſt.* 1.
Nux ala membranacea excepta.

Sp. Ch. P. foliis ſolitariis planis emarginatis pectinatis, ſquamis coni obtuſiſſimis adpreſſis. *Hort. Kew.*

THIS tree ſeldom grows to the height of the former ſpecies: its bark is cloſer, and that of the branches is of ſhining ſilvery hue: the leaves are ſolitary, ſhort, rigid, and on the under ſide marked with two longitudinal whitiſh lines; on the upper branches they are obtuſely pointed, and grow ſo cloſe as almoſt to conceal the bark; on the lower branches they are emarginated, and ſtand in a pectinated manner: the cones are upright, large, and furniſhed with ſcales, which, when young, have a membranous appendage, riſing from the upper margin, but when fully formed, the ſcales are very obtuſe, and cloſely embrace each other. It is a native of Switzerland and Germany; and according to the Hortus Kewenſis was firſt cultivated

in the Chelſea Garden, in 1739; but as thirty-ſix fine trees of this ſpecies are mentioned by Plot and Ray as growing near Newport, in Shropſhire, it muſt have been cultivated in this country at a much earlier period.

Though Linnæus, and ſeveral other writers on the Materia Medica, refer the common turpentine to the pinus ſylveſtris, and the terebinthina argentoratenſis, or Strasburg turpentine, to the Silver Fir Tree; yet, upon the authority of Murray, who follows Du Hamel and Haller, we have aſcribed the terebinthina vulgaris to the pine here figured, which pours out the turpentine ſo freely, that it is ſeldom neceſſary to make inciſions through the bark for the purpoſe.

The medicinal uſes of the different turpentines will be conſidered under the Pinus Larix.

PINUS LARIX. COMMON WHITE LARCH TREE.

Terebinthina veneta. *Pharm. Lond. & Edinb.*

SYNONYMA. Larix. *Bauh. Pin. p.* 493. *Ger. Emac. p.* 1385. *Park. Theat. p.* 1533. Pinus foliis faciculatis deciduis, conis ovato-oblongis, ſquamis ovatis ſubſcabris margine laceris. *Du Roy Baumz. T.* 2. *p.* 61. Larix folio deciduo conifera. *Du Hamel. Arb.* 1. *p.* 332. *t.* 131. *Bauh. Hiſt.* 1. *p.* 265. *Hall. Hiſt. n.* 1658. The Larch Tree. *Hunter's Evel.* 179.

Claſs Monoecia. *Ord.* Monadelphia. *Lin. Gen. Plant.* 1077.

Eſſ. Gen. Ch. *Masc. Cal.* 4-phyllus. *Cor.* 0. *Stam.* plurima. *Antheræ* nudæ.
Fem. Cal. ſtrobili: ſquama 2-flora. *Cor.* 0. *Piſt.* 1. *Nux* ala membranacea excepta.

Sp. Ch. P. foliis faciculatis mollibus obtuſiuſculis, bracteis extra ſquamas ſtrobilorum exſtantibus. *Hort. Kew.*

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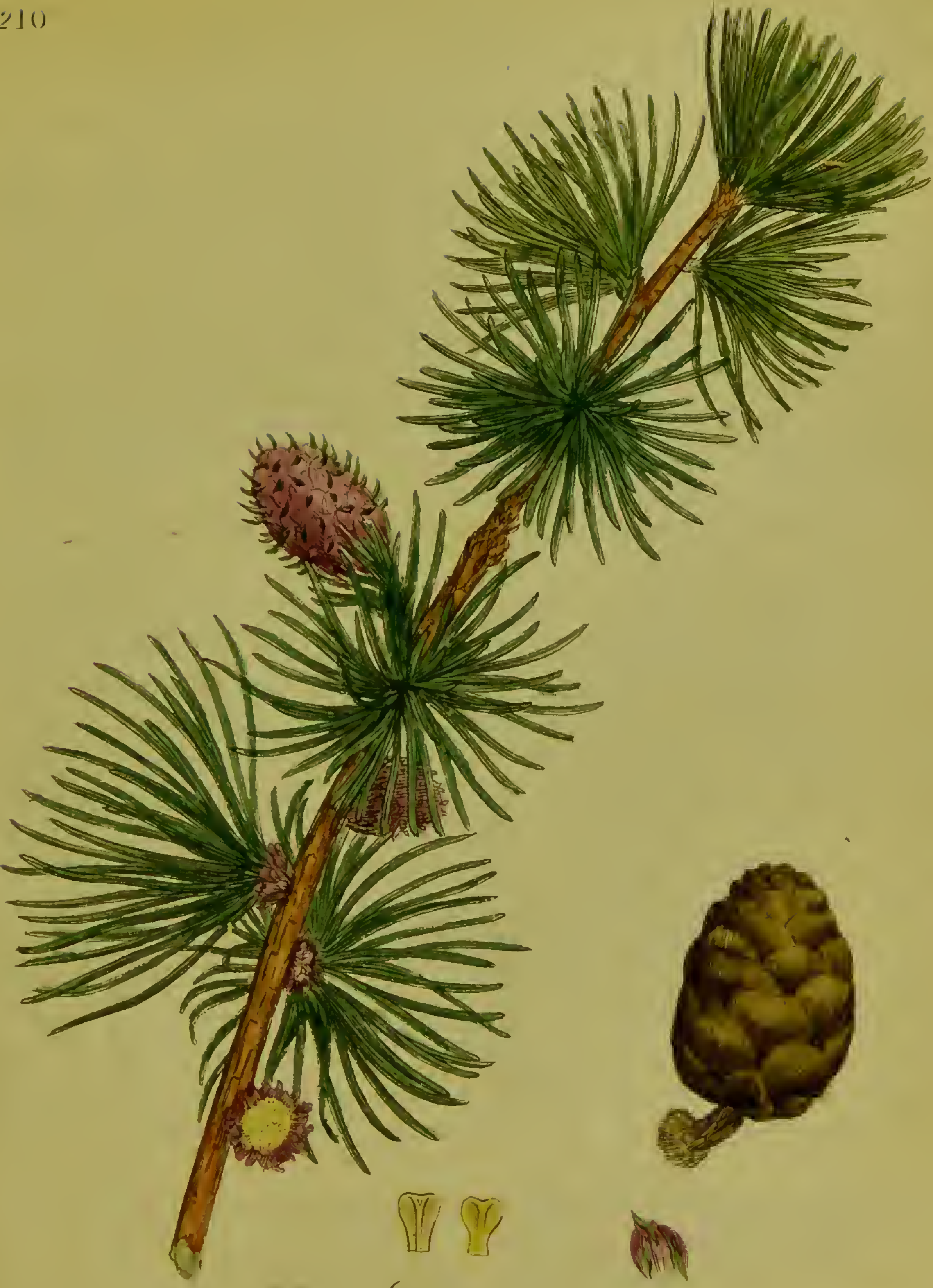

Pinus Larix.

Publish'd by W. Woodville June 1 1793

THE long ſlender pendent branches and whitiſh bark readily diſtinguiſh the Larch from the preceding ſpecies of pine: the leaves are deciduous, ſlender, ſoft, of a bright green colour, and placed in bundles: the cones are ſmall, egg-ſhaped, covered with obtuſe ſcales, from beneath which, the bracteal leaves appear.

It is a native of Switzerland and Germany, flowering in March and April, and cultivated in England ſince the year 1629.

The terebinthina *veneta*, or more properly called *larigna* (as we are not wholly ſupplied with this article by the Venetians) iſſues ſpontaneouſly through the bark of this tree, but is more commonly obtained by wounding the bark at the diſtance of about two feet from the ground, and inſerting in the wound a ſmall canula, through which the turpentine flows into proper veſſels, which are placed for its reception.

This turpentine is uſually thinner than any of the other ſorts, of a clear whitiſh or pale yellowiſh colour, a hot pungent bitteriſh diſagreeable taſte, and a ſtrong ſmell, without any thing of the aromatic flavour of the Chian kind.—The different turpentines reſerved for conſideration here, are the Chian or Cyprus turpentine, obtained from Piſtacia Terbinthius, (ſee page 415.) 2. the Common, from the Pinus Picea: to this tree is alſo referred the Terebinthina argentoratenſis, or Straſburgh turpentine: 3. the Venice turpentine: and here we may include the balſamum canadenſe, or Canada balſam, which may be conſidered as one of the pureſt of the turpentines, and is procured from the Pinus Balſamea, or Balm of Gilead Fir.

All theſe turpentines diſſolve totally in rectified ſpirit, but give out little to watery menſtrua: they become miſcible with water, into a milky liquor, by the mediation of the yolk or white of an egg, and more elegantly by mucilages. Diſtilled with water, they yield a notable quantity of a ſubtile penetrating eſſential oil, vulgarly called ſpirit; a yellow or blackiſh reſin remaining in the ſtill, which is the common roſin of the ſhops. The eſſential oil, on being diſtilled in a retort, becomes more ſubtile, and in this ſtate is called ethereal oil of turpentine.

All the turpentines have been conſidered as hot ſtimulating corroborants and detergents, qualities which they poſſeſs in common.[a]

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[a] Venice turpentine is thought to be the moſt powerfully diuretic and detergent: the Cyprus and Straſburgh kinds the moſt corroborant.

They ſtimulate the firſt paſſages, and prove laxative; and we are told by Dr. Cullen, that half an ounce or an ounce of Venice turpentine, triturated with the yolk of an egg, and diffuſed in water, may be employed in the form of an injection, as the moſt certain laxative in colics, and other caſes of obſtinate coſtiveneſs. When turpentine is carried into the blood-veſſels, it ſtimulates the whole ſyſtem; hence its uſe in chronic rheumatiſm and paralyſis. Turpentine readily paſſes off by urine, which it imbues with a peculiar odour; alſo by perſpiration, and probably by exhalation from the lungs: and to theſe reſpective effects are to be aſcribed the virtues it may poſſeſs in gravelly complaints, ſcurvy, and pulmonic diſorders. In all theſe diſeaſes, however, and eſpecially the laſt, this medicine, as well as ſome of the gums and balſams of the terebinthinate kind, by acting as ſtimulants, are often productive of miſchief, as was firſt obſerved by Boerhaave, and ſince by Fothergill.

Turpentine has been much uſed in gleets and fluor albus; its efficacy in the former of theſe diſorders Dr. Cullen aſcribes to its inducing ſome degree of inflammation of the urethra; in proof of which he ſays, "I have had ſome inſtances, both of turpentine and balſam of copaiva, producing a manifeſt inflammation in the urethra, to the degree of occaſioning a ſuppreſſion of urine; but when theſe effects went off, the gleet, which had ſubſiſted for ſome time before, was entirely cured."

The eſſential oil, in which the virtues of turpentine reſide, is not only preferred for external uſe, as a rubifacient, &c. but alſo internally as a diuretic; and by Pitcairn and Cheyne as a remedy for the ſciatica; but few ſtomachs are able to bear it in the doſes they direct.

Turpentine, ſo much uſed formerly as a digeſtive application, is in modern ſurgery almoſt wholly exploded.

FINIS.

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The following ARRANGEMENT is extracted from the MATERIA MEDICA, publiſhed by Dr. CULLEN.

MATERIÆ MEDICÆ TABULA GENERALIS.

In qua Medicamenta ad Capita quædam ſecundum indicationes morborum curatorias quibus reſpondent, referuntur.

MATERIA MEDICA conſtat ex

- NUTRIMENTIS quæ ſunt,
  - *Cibi*, Sect. I.
  - *Potus*, S. II.
  - et quæ cum his aſſumuntur *Condimenta*, S. III.
- MEDICAMENTIS quæ agunt in
  - Solida.
    - Simplicia.
      - *Aſtringentia*, Cap. I.
      - *Tonica*, C. II.
      - *Emollientia*, C. III.
      - *Erodentia*, C. IV.
    - Viva.
      - *Stimulantia*, C. V.
      - *Sedantia*.
        - *Narcotica*, C. VI.
        - *Refrigerantia*, C. VII.
      - *Antiſpaſmodica*, C. VIII.
  - Fluida.
    - Immutantia.
      - Fluiditatem.
        - *Attenuantia*, C. IX.
        - *Inſpiſſantia*, C. X.
      - Miſturam.
        - Acrimoniam corrigentia.
          - In genere
            - *Demulcentia*, C. XI.
          - In ſpecie
            - *Antacida*, C. XII.
            - *Antalkalina*, C. XIII.
            - *Antiſeptica*, C. XIV.
    - Evacuantia.
      - *Errhina*, C. XV.
      - *Sialogoga*, C. XVI.
      - *Expectorantia*, C. XVII.
      - *Emetica*, C. XVIII.
      - *Cathartica*, C. XIX.
      - *Diuretica*, C. XX.
      - *Diaphoretica*, C. XXI.
      - *Menagoga*, C. XXII.

CATALOGUE of the VEGETABLE MATERIA MEDICA,

According to the preceding TABLE.

I. NUTRIMENTA.

A. FRUCTUS.

a. *Acido-dulces recentes.*

Prunum
Aurantium
Limonium
Rubus idæus
Ribes rubrum
—— nigrum
Morum
Uvæ vitis

b. *Acido-dulces ſiccatæ.*

Uvæ paſſæ majores
—— —— minores
Caricæ

B. HERBÆ OLERACEÆ.

Naſturtium aquaticum
Taraxacum
Petroſelinum
Cinara

C. RADICES.

Daucus
Allium
Satyrion

D. SEMINA *Nuces.*

Amygdalæ
———— dulces
———— amaræ
Juglans
Olivæ

II. MEDICAMENTA.

I. ADSTRINGENTIA.

Roſa rubra
Pentaphyllum
Tormentilla
Rubia
Acetoſa
Hydrolapathum
Biſtorta
Filix
Trichomanes
Granatum
Quercus
Gallæ
Lignum campechenſe
Cydonia
Morum
Pruna ſylveſt.
Acacia
Catechu
Sanguis draconis
Adſtringentia varia
Anchuſa
Baluſtina
Hypericum
Millefolium
Plantago
Convallaria
Uva urſi

II. TONICA.
Gentiana
Centaureum minus
Quaſſia
Simaroubra
Trifolium paluſtre
Fumaria
Chamæmelum
Tanacetum
Abſynthium
Abrotanum
Abſynthium maritimum
Scordium
Serpentaria virginiana
Arnica
Cortex peruvianus

III. EMOLLIENTIA.

a. *Columniferæ.*

Althæa
Malva

b. *Farinoſa.*

Cydonium ſemina
Fœnum græcum
Linum

Emollientia varia.

Parietaria
Verbaſcum
Lilium album

IV. ERODANTIA SIVE CORROSIVA.

V. STIMULANTIA.

A. *Verticillatæ.*

Lavendula
Meliſſa
Majorana

Origanum
Marum
Roſmarinus
Hyſſopus
Hedera terreſtris
Mentha
Mentha piperitis
Pulegium
Thymus
Serpyllum
Salvia

B. *Umbellatæ.*

Anethum
Angelica
Aniſum
Caruon
Coriandrum
Cuminum
Fœniculum
Pimpinella

C. *Siliquoſæ.*

Cochlearia
Naſturtium aquat.
Raphanus ruſticanus
Sinapi

D. *Alliaceæ.*

Allium

E. *Coniferæ.*

Abies
Pinus
Juniperus

F. *Balſamica.*

Terebinthina veneta
——— communis
Balſamum canadenſe
——— copaiva
——— tolutanum
——— gileadenſe

G. *Reſinoſa.*

Guaiacum
Ladanum
Styrax calamita
Benzöe

H. *Aromatica.*

Cinnamomum
Nux Moſchata
Macis
Caryophyllus arom.
Pimento
Canella alba
Caſcarilla
Piper nigrum
—— longum
—— indicum
Zingiber
Cardamomum minus
Zedoaria
Serpentaria virginiana
Ginſeng
Calamus aromaticus

I. *Acria.*

Arum
Pyrethrum
Staphiſagria

SEDANTIA.

VI. NARCOTICA.

a *Rhœades.*

Papaver album
——— erraticum

b. *Umbellatæ.*

Cicuta
Cicuta aquatica

c. *Solonaceæ.*

Belladonna
Hyoſciamus
Nicotiana
Solanum
Stramonium

d. *Variæ.*

Laurus
Camphora
Crocus
Vinum

VII. REFRIGERANTIA.

Plantarum Fructus
Herbæ et Radices acidi

VIII. ANTISPASMODICA.

Herbæ fœtidæ.

Artemiſia
Atriplex fœtida
Cuminum
Pulegium
Ruta
Sabina

Gummi fœtidæ.

Aſafœtida
Galbanum
Opoponax

Valeriana ſylveſtris

IX. DILUENTIA.

X. ATTENUANTIA.

Alkalina
Saccharum
Glycyrrhiza
Fructus ſiccatæ

XI. INSPISSANTIA.

Acida
Demulcentia farinoſa
et mucilaginoſa.

XII. DEMULCENTIA.

Mucilaginoſa
Gummi arabicum
——— tragacantha
Farinoſa
Oleoſa blanda

XIII. ANTACIDA.

XIV. ANTALKALINA.

XV. ANTISEPTICA.

Plantarum partes acidæ
Olera aceſcentia

Saccharum
Plantæ ſiliquoſæ
——— alliaceæ
Aſtringentia
Amara
Aromatica
Olea eſſentialia
Camphora
Gummi-reſinæ
Crocus
Contrayerva
Valeriana ſylv.
Opium
Papaver album
Vinum

XVI. ERRHINA.

Aſarum
Helleborus albus
Iris paluſtris
Pyrethrum

XVII. SIALOGOGA.

Angelica
Caryophylli arom.
Imperatoria
Nicotiana
Piper
Pyrethrum

XVIII. EXPECTORANTIA.

Hedera terreſtris
Marrubium
Pulegium
Enula campana
Iris florentina
Nicotiana
Scilla
Tuſſilago
Benzöe
Styrax
Balſamum canad.
——— tolutanum

XIX. EMETICA.

Aſarum
Ipecacuanha
Nicotiana
Scilla
Sinapi
Raphanus ruſt.
Amara

XX. CATHARTICA.

1 *Mitiora*
Aſceſcentia
Fructus acido-dulces
Caſſia fiſtularis
Tamarindus

Dulcia.

Saccharum
Manna
Radices dulces
Olera blanda

Roſa damaſcena
Viola
Polypodium
Olea blanda
Sinapi
Amara
Balſamica

2 *Acriora*
Rhabarbarum
Seneka
Geniſta
Sambucus
Ricinus
Senna
Helleborus niger
Jalapium
Scammonium
Spina cervina
Nicotiana
Helleborus albus
Colocynthis
Elaterium

XXI. DIURETICA.

Petroſelinum
Daucus
Fœniculum
Pimpinella
Eryngium
Rubia tinctorum

Varia.

Bardana
Dulcamara
Arum
Aſarum
Digitalis
Enula camp.
Geniſta
Nicotiana
Ruta
Sabina
Seneka
Scilla
Amara
Balſamica
Siliquoſæ
Alliaceæ

XXII. DAPHORETICA.

Crocus
Dulcamara
Opium
Camphora
Contrayerva
Serpentaria
Salvia
Scordium
Guaiacum
Saſſafras
Seneka
Acida vegetab.
Olea eſſentialia
Vinum
Diluentia

XXIII. MENAGOGA.

Aloe
Gummi fœtida
Plantæ fœtidæ
Crocus

[*This Arrangement, though evidently defective, yet conſidering the authority on which it ſtands, we have thought proper to publiſh it without any material alteration.*]